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WORK FOR MAY.

This month is one, which, if properly improved, never fails to engross all the attention of the prudent husbandman, for though in the South, and South West, much, if not all, of the grounds intended for planting purposes have already been prepared and planted, still the occupation of the planter and farmer who desires to reap will be during its continuance, incessant, for that is the only condition by which either can expect to attain his object. The best soils may be prepared by manuring, skilful ploughing and neat pulverization—the seeds may have been committed to the earth in the best possible manner—the choicest seeds may have been selected, the plants may have come up well, made an excellent stand, and covered the grounds in the most encouraging and handsome manner, but with all these advantages to animate the mind of the culturist with the hope of luxuriant crops, yet if he do not watch the process of weeds, and arrest their growth in the very nipping time of their vegetation, all his hopes may be blighted and cast to the winds, for there is no crop that can withstand the inroads of such intruders, as while the cultivable plants, in general, are slow of growth, the whole family of weeds, appear, as it were, to delight in rushing onward to maturity with telegraphic despatch, and would seem, by simply obeying the laws of their natures, to admonish the sluggard of the danger of procrastination, and to tell him that it is alone by active exertions that an enemy so subtle can be kept within proper bounds.

With this hint to energetic action, we will pass to the detail of the work

ON THE FARM.

Corn.—Although this crop, over the largest portion of the corn-region, has already not only been planted, but is up and has received one or two workings, still there are several of the middle states, as well as all east of the Susquehannah, where that la-

bour has to be performed; this being the case there is propriety in our calling attention to this part of the husbandman's duty; for let whatever be said that may, the corn crop in this country is and has been the great staple of breadstuffs at home from the first settlement of our country, and will continue to be so—whilst a prospect seems to be unfolding itself, under pleasing auspices, to open for it a market in Great Britain and Ireland, which we have every reason to hope will continue long beyond the duration of the present scarcity which has called it into being. In England, *wheat* is the great article from which bread is made, and notwithstanding the advanced state to which the art of Agriculture has been raised there, no year however fruitful or seasonable it may be, is marked by a full supply of breadstuffs, so that the deficiency, greater some years than others, has to be imported from abroad. For a long series of years prior to the last ten or twelve, this deficiency had been mainly drawn from the Baltic and Black seas. In subsequent years, and for nearly during the period we have named, it has been made up of importations from the countries bordering on the seas designated and the Canadas. Of the supplies derived from the latter places, a very considerable portion was made up of American wheat, grown in the North-western bordering states, and admitted into the Canadas at a low rate of duty. By the operation, however, of Sir Robert Peel's new *tariff* regulations, this outlet for the wheat of the western states will be measurably cut off, and the advantage of furnishing the limited supply from the United States, will again, we think, revert to the Atlantic wheat growing states. We say *limited*, because, from the combined causes of proximity to England and cheapness of labor in those countries bordering on the Baltic and Black seas, they must, of course, except at a time like the present when a superabundance of grain does not exist there, be the sources of supply. To find a market in England at any time for any

large quantity of our surplus wheat, cannot be reasonably calculated upon, as it is only when the exchanges favor the procedure, that wheat is, or can be exported thither to any considerable extent, as the laws of profit and loss invariably regulate matters of commerce and trade. But that no inconsiderable portion of our corn will find a market in future there we have every reason to hope, as when the people of England and Ireland shall once have become familiar with the various modes by which it may be cooked and formed into bread, it cannot fail to be substituted for wheaten bread by all whose necessities may urge them to the study of economy, while it cannot fail to become a favorite food with all the large stall-feeding cattle dealers, as between corn and the substances now used there, there can be no doubt as to the policy of substituting it for most of the substances used for such purposes.

If then our premises be correct, and we believe they are, it will follow as a natural deduction from them, that the demand in that quarter will continue to increase with each succeeding year, and it is reasonable to infer, that we shall enjoy an annually increasing market in that direction, unless the peaceful relations of the two countries shall be interrupted.

Indulging in these views we feel ourselves called upon to invoke all corn-planters to increased exertions to secure large yields of corn. When we say large yields we do not desire to be understood as recommending an increase of acres, but rather that they should concentrate and improve, so as to make one acre yield as much as two formerly did. Let none despair of being able to achieve this triumph, as they may rest assured that it requires only that an effort should be made to ensure success. With proper manuring, deep ploughing, neat pulverization, and cleanly and judicious culture, it is quite as easy to grow 50 bushels of corn on an acre, as it is 15 or 20 in the careless manner which has been too long and too generally pursued. The saving of the price of labor alone, under the existence of such a state of things, would, of itself, be a handsome profit, while the reflection arising from the fact that one's soil had been improved a hundred per cent., or more, would prove a source of pleasure beyond all price, as it would be fulfilling the obligation imposed upon us by our Creator, when he gave us the land to till.

We have alluded to judicious culture, and it may be well to make a remark or two explanatory of our meaning. We do not pretend to be oracular in matters of the kind, although, in a small experiment which we once made, we reaped at the rate of 128 bushels to the acre; but because we are both unambitious and self-doubting, we shall urge what we may say upon this head with great deference to the opinions of others. Far, very far, are we from being so presumptuous as to suppose that our way is the best, but the result of our limited experiment con-

vinced us it was a good one, and would, therefore, claim permission to state it in detail, for although made upon a few rods, we believe it to be equally applicable to fields however large their extent may be.

We ploughed on the ground about 8 inches deep, and after leaving the upturned soil for a week to be mellorated by the mellowing influence of the atmosphere, we re-ploughed the same depth, with one plough, while we followed in the furrow four inches deeper, thus making our bed of tilth 12 inches deep, we then manured broadcast at the rate of 35 double-horse cart-loads to the acre, and ploughed the manure in 6 inches deep, harrowed and cross-harrowed until we reduced the soil to a perfect state of pulverization, then rolled it. We planted it 3 by 4; taking care to place in every hill a handful of a compost composed of 5 parts Ashes and 1 of Plaster, then covered. When the corn came up and was ready to flush, we put half a shovelful of rich mould on each hill. When the corn was 8 or 10 inches high we gave it a ploughing about four inches deep, going close up to the hills and finishing the working with the hoe. We gave the patch three subsequent workings with the cultivator and hoe, being desirous of avoiding the laceration of the lateral rootlets, believing that, if nature had not intended them for the essential purpose of feeders she would not have clothed the corn plants with them, and that every injury done to them would lessen their capacity for abstracting nourishment from the earth, and consequently decrease that of producing grain. That we were right in our theory we think the result proved most conclusively, as we are very certain that, without this extra treatment, the ground would not have yielded more than twenty bushels to the acre, if that.

Fall Potatoes.—In view of the disease to which Potatoes have been subjected for the last few years, it may be opportune to recommend that every possible precaution be taken to prevent a recurrence this season. Of what that precaution may be—what the means to be used—it is difficult to speak, for although many theories have been broached, none rest upon better grounds than conjecture; but still it may be safe to use some, and we know of none that we would rely upon with more confidence than salt and lime, and early planting. If the disease be the offspring of a parasite, it might be well to cover the entire surface with straw and leaves, and fire them at a time when the soil was dry and a better chance allowed for the destruction of the vegetating principle of the seed. This done we would plough deeply, thoroughly pulverize, and strew a mixture of 5 bushels of freshly slacked lime and 2 of salt on each acre broadcast—we would then lay off the furrows, manure liberally with barn-yard manure, place the sets on the manure, cover them with the soil, and finish by strewing the lime and salt mixture on the top of the furrows.

Upon the subject of the time at which potatoes should be planted, we will barely remark, that the

earlier in this month the better—at all events they should be gotten in by the 10th or 15th of this month at farthest.

In the after culture of potatoes, we think deep ploughing close to the rows should be avoided, as all such approaches never fail to do injury to the roots—it would be better after the first ploughing that the cultivator and hoes be used,—the great object to be gained, is, simply to keep the ground open to the influence of the atmosphere and the weeds extirpated.

In hilling, there is no necessity to give the hills much elevation—on the contrary, we believe that it is better that they should be but little higher than the surrounding ground, and all important that a flat surface be preserved on tops of the hills for the reception and absorption of both dew and rain, as when the hills or furrows are cone-like in form, the surface presented for the action of the Sun being so much greater than when flat, the dew is immediately evaporated by the rays of the Sun, while the rain is passed off and the ammonia in each are thus lost to the crop.

Besides strewing lime and plaster over tops of the furrows, when the sets are planted, so soon as the plants come up we would strew plaster over them to attract, and absorb the ammonia of the atmosphere, dew, and rain.

When the plants first begin to show their crowns above the ground a harrow should be run over the furrows. This serves the double purpose of destroying weeds and of ensuring a regular coming up of the plants. Should your ground be stiff, we consider harrowing absolutely necessary to ensure the latter result.

As the sets may be cut, they should be dried in plaster, and should be spread on a dry cool floor where they should be permitted to remain for a few days before being planted.

Millet.—In seasons when drought prevails, and on farms where grass is not cultivated for hay, a very excellent substitute may be found in millet. The time for planting is about the 15th of this month. The soil best adapted for it is a deep rich loam, and success will be the more certain where a generous dressing of manure is given to it. Deep ploughing and neat pulverization are also essential to a luxuriant crop. With such appliances 4 tons of good hay may be raised on an acre, which if cut in season, just when the tops of the seed begin to change, and well cured, will prove as nourishing and be equally as grateful to the animals as so much timothy hay. The time of sowing is from the 10th to the 20th of this month. In the South where the growing of grass for hay may not form a branch of husbandry, millet will be found to be the very thing desired, being quick of growth and making excellent hay. But good rich loamy soil is indispensable.

Pumpkins.—As near the first of this month as can be is the time to plant pumpkins, and we cannot too strongly impress upon all who wish to provide succulent food for their milch cows to plant a goodly sized patch of them.

Mangel Wurzel and Sugar Beet.—Let those who may desire to have good butter and a plentiful supply of rich milk through the winter put in an acre or two of these excellent roots. They will keep until late in the Spring in a dry cellar, and afford at all times from fall to grass time in spring, a milk and cream yielding food for milch cows. The soil best adapted to their growth is a deep rich sand or loam, which should be manured either with a deep rich well decomposed compost, or barn-yard or stable manure thoroughly rotted. When they come up they should have all the sprouts but one taken off by the finger and thumb—at the first working the plants should be thinned out so as to stand about 8 inches apart. The after culture consists in keeping the ground light, and the plants clean of weeds.

Sweet Potatoes.—This delicacy of the table should be got in at the latest by the 10th of the month—no planter or farmer should rest satisfied without a patch of them, as he cannot provide for his table an esculent more acceptable to that part of his family whose comfort it should be the business of the husband and father to study.

Carrots and Parsnips.—In these delightfully succulent and nutritious roots the lover of good butter and milk has a never failing resource from which to supply his table with both through the winter and early spring. Therefore let none who would secure a supply of both for their tables, who would desire to afford to the ladies of their families an opportunity of showing what excellent house-wives they can be—what delicious butter they can make; when their neighbors have none—we say let all such put in an acre or two of carrots and parsnips—the experiment once tried, a *Seckel* pear to a hog-peach, they will never fail to plant each year thereafter, though they might live as long as the Spanish salutation would vouchsafe.

Melons of all kinds.—As early as possible in this month get in your *Water-melons*, *Canteleupes*, and *Musk-melons*.

Orchard—If you have not already done so, go forthwith into your orchard and give to the body of each tree therein, from the ground, a brushing down with *lie* made of 2 lbs. of Potash and 10 gallons of water. In about two weeks thereafter, make a strong decoction of tobacco, and to every gallon of it add two gallons of soft soap and two quarts of salt—mix the whole together, then take a brush and paint the trunks of the trees from the ground upwards to the branching of the limbs.

Implements and Tools.—Keep these in good order and under cover.

Fences, and fence corners.—Keep the first always in good repair and the latter free from weeds, briars and bushes.

Lucerne.—As a grass to cut green to feed to working stock this must be considered to stand at the head of the list. When well set it yields a most abundant crop, and may be cut every few weeks du-

ring the season from May till frost. The soil which it most delights in is a sandy loam, which should be well manured and most thoroughly and deeply ploughed and pulverized. 30 lbs. of seed to the acre is the quantity to be sown: if the seed is more than a year old there is no security that it will vegetate, therefore be careful to get fresh seed.

Working Horses, Mules, and Oxen.—Let these be fed and cared for.

CULTURE AND USE OF LUCERNE.

FRIEND BATEHAM:—Your correspondent, C. W. of Licking co., asks information respecting the culture of Lucerne. He is welcome to the following:

Lucerne (*Medicago Sativa*) should be sown early in the Spring, on rich sandy soil, either broad-cast, or in drills a foot asunder; (the latter method is decidedly preferable, as it permits the use of a heavy drag to loosen the soil between the rows once or twice in a season;) and from 12 to 15 lbs. of seed per acre, is then sufficient. As soon as it reaches a foot in height, it might be mown, and again every month or six weeks through the summer. It is much better adapted for feeding when fresh cut or soiling, than for winter fodder. It is quite as much benefited by the application of plaster, lime, or ashes, as common clover; also by top dressings of manure; and it will produce about twice as much herbage as red clover treated in the same manner, but it does not answer equally well for fattening. Near cities, for dairymen or tavern-keepers, this crop is almost invaluable; and, indeed, for any one who has the right kind of soil, and economy enough to resort to the soiling process. Around Paris, and other cities in France, Lucerne is the main dependence. Nearly five years since, I sowed in this county, a small quantity of Lucerne, on a sandy soil; the plants continue to thrive luxuriantly, and though subjected to all sorts of hard usage, for neither animals nor fowls show it any mercy, it was last summer as fine as ever. The roots will continue vigorous about 10 years; but it is more profitable if renewed once in six or seven. Lucerne is no humbug.

Yours, &c.

NORTON S. TOWNSEND.

Elyria, O., 1846.

Remarks.—In addition to the foregoing, we would mention that a farmer near Columbus, Mr. Welles, sowed a small quantity of Lucerne 4 or 5 years ago, by way of experiment, and it has succeeded admirably, though not as well as he thinks it would if his land was more sandy. He brought a single root into our office a few days ago, which was over two feet in length, and from its size where broken off, at the bottom, we should judge that one third of its length was left in the ground. The top part was as large as a good sized parsnip. It branched off at the surface into numerous crowns or heads.

The subscriber who inquires whether lucerne and lucerne grass are the same, is informed there is only one article called lucerne, and that more a clover than grass, though not strictly either.—*Ohio Cult.*

ON SOWING CLOVER SEED.

ADVANTAGE OF HARROWING THE SEED IN.

MR. BATEHAM: As information is desired on the subject of sowing clover seed, permit me to state the result of a small experiment made the past year.

Wishing to seed a piece of ground with clover,

and knowing no better method, I prepared and sowed it with oats, and after harrowing it one way, sowed the clover seed; but not having seed enough to go over the whole field, I put on what I had, and harrowed it in. A short time afterwards I sowed the remainder of the field, and left it without harrowing. The result was, that where the seed was harrowed in, the clover took well and appeared to suffer but little from the drought, but where not harrowed, it was almost an entire failure; being evidently killed by the dry weather.

It should be mentioned that my land is what is here called 'oak openings'; a light sandy soil, not naturally very fertile. I would also observe that plaster was applied to the field immediately after sowing the clover seed; as I am inclined to think that plaster assists its germinating, though I am not sure in regard to this.

Respectfully, &c.,

Milan, Erie co., O., March, 1846.

P. S. I wish to inquire whether plowing under a crop of clover when in blossom contributes the requisite elements or properties to the soil for a crop of wheat? Would it be as good as a dressing of lime?

E. G.

Reply.—In most cases, if not all, it will be found that on soils that have sufficient strength to produce a good crop of clover, the immediate benefit from the turning in of the clover will be greater than from an application of lime. But on lands that have been exhausted, or naturally deficient of lime, a dressing of this material will be found necessary as well for the production of good clover as for wheat. The principal reason why clover is more valuable than any other crop as a preparation for wheat, is, because it absorbs and elaborates from the earth and the air precisely the kind of materials that are required by the wheat plant; and hence when buried and decomposed it forms the most suitable food for the growing wheat.—*Ohio Cultivator.*

IMPROVING LAND BY GREEN MANURES.—It is believed by some that the best kind of vegetable growth for turning in, in the form of green manure, is Indian corn sown broad-cast. If it be intended to apply lime to the land, it would be well to do so the fall before. Then as early in the spring as circumstances will permit, sow corn broad cast say 3 or 4 bushels to the acre, and as soon as it has grown as high as it can conveniently be turned under, with a deep working plough, turn it under, and immediately sow another crop the same way, turning that under as before, but with a medium plough run crossway of the previous furrow. In the middle and Southern States three crops can thus be turned under in one season.—It is believed that no system of manuring or renovation, except the heaviest application, of stable manure, can compare with this plan in its results. If the land be very poor, the first crop will be light; but light as it may be it will add a very considerable portion of the elements of vegetable nutriment to the soil, and thus the second crop will be all that can be desired. It is believed that in this way four times as much improvement will be effected in one season, as can by means of clover in three or four years. For this purpose, farmers in the North should use the tall kinds of southern corn, as being of more rapid growth, and furnishing vastly more matter for the soil.—*O. Cultivator.*

Cow Pea, a very productive yellow pea, much used for green fallows, same as clover.

CULTURE OF CORN.

TO THE FARMERS AND PLANTERS OF SOUTH-CAROLINA.

At the late meeting of the State Agricultural Society, the following Resolution was adopted, viz: "That the President be requested to communicate to the public, before the planting season, such information as he may possess, or which it may be in his power to collect, in relation to the means of modifying the effects of drouth on Indian corn and other provisions."

It is necessary for me to premise, that what I shall say concerning the use of the plough, is mainly derivative. From several causes, the planters of the Sea Islands are but slightly acquainted, in practice, with the value of this great agricultural implement. To give the experience of the highest authorities, is, therefore, on my part an imperative obligation. It is proper also I should in this place observe that, in consequence of assiduous endeavors to obtain facts from supposed reliable sources, in which I have signally failed, this communication, which would have been made at a much earlier period, has been delayed, but not too late, it is hoped, to be wholly unprofitable.

Satisfactorily to elucidate the matter of the Resolution, would involve a minute examination of many of the topics connected with the science of husbandry. As I am certain, however, it was not designed or intended that my remarks should take so wide a scope, I shall only briefly advert to those principles and their operation upon which some of the most valuable results in husbandry rest.

All the earths have a considerable attraction for the fluid which the atmosphere contains. The very best soils possess this power in the highest degree; hence, it may with certainty be assumed that the measure of their fertility depends chiefly on their capacity to absorb moisture. In determining their value, however, on that hand, two other properties have to be noticed,—the quantity of water which is essential to their saturation, and the power of retaining it. In all these respects, clay and sand occupy antagonistic relations. The former imbibes the aqueous vapors like sponge and parts with them reluctantly; when dry, it constitutes a compact mass; from the closeness of its texture the dissolvent action of the air is excluded, by which putrefaction is retarded. The latter is friable and a septic, from the solidity of its particles and their want of coherence, water filters easily: In the adoption of expedients by which to secure these earths a supply of moisture, different processes, in part only, it is advisable to pursue. From their predominance in the State, I shall direct my attention prominently to clayed or aluminous soils. What then, are the means which reason and experience assure us are the best calculated to attain the end in view? I answer, deep ploughing; thorough pulverization of the soil; abundance of manure; and the use of salt and retentive atmospheric absorbents.

1. *Deep ploughing.* The roots of plants should be allowed to extend themselves in every direction. The deeper they penetrate and the wider their ramifications, the greater will be the absorption of nourishment. The average depth of good soils is about six inches. Every inch added increases its value eight per cent.; so that a soil where the vegetable layer is twelve inches thick, is worth half as much again as that in which it is only six inches.* It is

consequently obvious that whatever, from this cause, may be its enhanced value, if not reached at some time in the progress of cultivation; the remainder is in effect a *caput mortuum*. By deep ploughing the capacity of the whole soil is called forth. While it enables the earth, through agency of earth and water, to inhale atmospheric manure, by diminishing the force of the sun's rays it leaves materially its exhalations. Should the substratum, which perhaps in every instance contains the principle of fertility, be broken, still, as a general proposition, the most signal benefits, prospectively, if not immediately, may confidently be expected to ensue from the operation. Deep ploughing insures the greatest product from the smallest given quantity of land. If by the use of one-half of the soil, ten bushels of corn per acre be obtained, it is reasonable to infer, all other circumstances being equal, that were the whole in till, twenty bushels would be harvested; indeed a much larger quantity ought to be the result, for the deeper the soil the greater will be the number of stalks, and the larger and more numerous the ears. The maize, says Taylor, "is a little tree," possessing roots correspondent to its size, penetrates a depth almost incredible—nine feet, it is known, have been reached. It follows that where, from the vigor of the plant or the friability of the land, the roots meet with no obstruction, the consequences of drouth will be sensibly diminished, if not entirely prevented. It is believed that the rolling of the leaves of corn is attributable solely to the absence of moisture. This is an error. Scanty manuring or shallow tillage is as often the true cause.

To render deep ploughing* effectual, it should take place in autumn. The expansive power of frost, and the modifying influence of air and rain, and the action of these in breaking the continuity of fibrous matter, are strong reasons in favor of the practice. Whether it should be done once in two or three years only, which, I believe, is the opinion of the most successful farmers of Great Britain, or annually, as is common in parts of our country, is certainly as yet an undetermined point.

2. *Pulverization.* The soil must not only be made easily accessible to the descent and spread of the roots, but there should be such a disintegration of its parts, as to allow the free transmission of air. However rich in ingredients, these afford no nutriment to vegetation, until subjected to the combined action of heat, air and moisture—the great agents of decomposition. Unless freely supplied with oxygen, the remains of animals and vegetables do not decay, but they undergo putrefaction. "The frequent renewal of air by ploughing and the preparation of the soil, change the putrefaction of the organic constituents into a pure process of oxidation: and from the moment at which all the organic matter existing in a soil enters into a state of oxidation or decay, its fertility is enhanced."† In a well compounded soil, water is presented to the roots by capillary attraction. As this increases in proportion to the smallness of the particles of earth, the advantage of their complete pulverization is plain. It is equally true, that as food for plants must exist in solution, it is requisite to admit water to the roots by artificially reducing the compactness of the soil by tillage. From frequent working, therefore, the most favorable results may be anticipated; indeed, it has been well observed, that a good stirring of the ground in dry weather is equal to a shower of rain; for however

* Thayer.

* About 12 inches.

† Liebig.

strange it may seem, while it promotes moisture, desiccation is prevented. To aid in the increase and preservation of atmospherical vapor, the ridge system is especially recommended. The breaking up of the old furrows deeply, and making the new ridges on them, by which the two interchange places, provide a quantity of finely divided earth much greater than what is obtained in the ordinary mode. While the coming up of the corn is thereby facilitated, and the thrifty condition of the young plants secured, the depth at which the seeds of grass and weeds are deposited, prevents their germination, except in small numbers; hence labor and time in the culture of the crop are saved. In relation to maize, the author of "Arrator" sums up the advantages of high ridges and deep furrows in substance as follows: The roots are never cut in one direction, and this great depth of tilth thus early obtained, by superseding the occasion for deep ploughing in the latter period of its growth, saves them in the other. The preservation of the roots, and deeper posture, enable the corn much longer to resist dry weather. Litter thrown into the deep furrow upon which the list is made, is a reservoir of manure, far removed from evaporation, within reach of the roots, which follow it along the furrows, and calculated to feed the plants when in need of rain. The dead earth brought up by the plough from the deep furrow is deposited on each side of it, without hurting the crop on the ridge; further, by one deep ploughing, received by the corn, after it is planted, being bestowed upon it whilst it is young, and its roots short, and being run nearly a foot from it, the roots of the corn in this way escape injury, and the effects of drouth on the plant being thus lessened, its product is increased.

It would appear from this condensed exposition of his views that, in the opinion of Taylor, one ploughing only, and that a deep and early one the growing crop requires. To clean and pulverize the soil, the harrow, skimmer, or cultivator, alone should be used. Each might advantageously be resorted to in any stage of its growth, but in a parched condition of the earth, their reviviscent tendency would then clearly demand it.

With regard to Sweet Potatoes, the plough may most profitably be employed at any time. When the shoots begin to wither, break up the space between the hills or ridges by running four furrows. The newly turned earth will be found wet in the morning, while before no moisture had been apparent. In a few days the leaves from being brown or yellow will assume a greenish hue, and new shoots ordinarily may be expected to follow.

3. Manure. The fertility of the soil is the first object to be obtained by the farmer. For their dividing properties, all fossil manures are highly esteemed. Deep ploughing and lime, unaided by organic matter, it is well attested, have renovated lands, that in the judgment of the former proprietors, were not worth the labor of cultivation. In reference to the special matter under consideration, a judicious admixture of soils is of primary importance. Clay applied to sand assists it in retaining manure, and receiving the vaporized water of the atmosphere. To allow the fibres of plants to shoot freely, clay, sand and lime, acting mechanically by their mixture, are mutual manures to each other. Burnt clay may beneficially be substituted for sand.

It has already been observed, that pulverized earth has a strong attraction for atmospherical vapor, and that this increases in proportion to the minuteness into which the particles are divided; but as the

power of the most fertile soils, in this respect, is inferior to that of even the worst ordinary manure, it is evident, that "for the mere purpose of withstanding long continued dry weather, those plants whose roots have immediate access to organic manures, will be much better enabled to absorb the necessary supplies of atmospherical moisture, than those merely vegetating in the unmanured soil;" hence, whenever fertilizers are employed in anticipation of drought, or to mitigate its evils, in either case, the good to flow from their application to corn, will depend in a high degree upon their abundance, and the materials that compose them. The richer the ingredients and larger the quantity, more decided will be the benefit. Suppose in a propitious season, one acre, judiciously manured, to yield fifty bushels, and five acres, of the same natural strength, unassisted by art, ten bushels per acre; experiments and practice prove that in drought, the former produces generally not five fold, but seven or eight times as much as the latter. I may indeed assert, that the difference in product will be commensurate with the heat and dryness of the weather.

Whether manures should be buried deep or shallow, or lie on the surface, and whether they should be spread in a rotted or unrotted state, are questions which the occasion does not require me to investigate. The tendency of decomposing animal and vegetable matter is to rise in the atmosphere; of fossil manures to sink. As it is known that coarse litter is better adapted to corn than any other crop: if employed when putrefaction has commenced, immediately before the period of committing the seed to the ground, or in the fall, in the shape of long muck, to allow the frosts, rain and wind of winter, to prepare it for the putrefactive process, every portion of the decaying and fermenting fertilizer will be gradually absorbed by the roots and leaves of the plants. All the facts that have come to my knowledge sustain conclusively the principles and reasoning I have advanced. I repeat that very rich ground rarely suffers materially for the want of water, especially if it has been properly divided and loosened by artificial means. If therefore, the withering power of drought should at any time show itself on poor land, let the farmer instantly apply putrescent manure on the surface of the ridge. To the spreading of compost without burying it over the cereals during their vegetation, the English attribute an almost magical influence. They assert that "the plants may almost be seen to renovate and regain their verdure." It is evident, says Thær, that not only actual advantages, but also security against evil is to be derived from the possession of an active manure of this nature, and without any sensible diminution of its value. Though the quantity may be small, yet the beneficial results, first indicated in the change of color in the leaves, will soon appear. In the instance of a planter of this place, whose crop was in a perilous condition from the excessive dryness of the summer '44, one cart load only to the acre of stable manure, partially decomposed, was instrumental in producing a fine yield, while from the remainder of the field the harvest was very meagre. When the application was made, the corn had begun to tassel; the stalks were small and the leaves yellow and curled. Although the former never increased in size, the latter soon exhibited a healthy green. This favorable indication took place before the first shower of rain, which was slight, and occurred about a fortnight after the trial of the experiment. The secret of my friend's success is traceable to the fact

that, as all fertilizers have a strong attraction for atmospheric moisture, he used the one, which of all others, in that respect, guano excepted, possesses the greatest power.

A prominent error in southern husbandry, is over planting. Manuring consequently as a system, is not practised. This alone is sufficient to account for the smallness of the aggregate crop for the extent of ground annually in till. Reformation on this head is therefore loudly demanded. But until this ensue, what is to be done? In what way may the injurious operation of drought be modified, as well by the ignorant as the skilful, the poor and the rich?

4. *Salt.* In small quantities salt is a septic; in large quantities, it resists putrefaction. Though not strictly germane to the subject entrusted to my charge, I hope I shall be excused for here stating the estimation in which this substance is held by many observant agriculturists. It destroys, they maintain, noxious weeds and vermin; gives luxuriance and verdure to grass lands; prevents the scab in (Irish) potatoes; sweetens grass, and hastens the maturity of crops. Wheat and barley following turnips on land that had been previously salted, the ensuing crop, it is well authenticated, escaped the mildew. For a top dressing for grass land, six bushels per acre are recommended; for cleaning the ground preparatory to the putting in of the grain, sixteen bushels, it is said, may be employed upon fallows. An ounce of salt to a gallon of water benefits vegetables; a larger quantity gives a brown color, and is therefore injurious. As it is a stimulant, salt should be mixed with compost, mud or loamy earth. Its great capacity for inhaling atmospheric moisture renders it peculiarly valuable in dry and hot weather. For cotton I have used it successfully at the rate of five pecks to the acre. Beyond that, its effects were adverse to the growth and production of the plants. Manure designed for corn, should receive, several weeks before it is put on the land as much salt as will furnish to every acre not exceeding one and a half bushels. If, however, none of the measures noticed in this communication have been adopted by the farmer, and his farm be suffering from the absence of rain, let him sprinkle on the ridge of each plant or hill as much well pulverized salt as he can conveniently take up with his thumb and two fore-fingers. In a short time, the result, from my own experience and that of some of my co-laborers, will be the same as though the ground had been recently moistened with a moderate shower. How long the benefit will continue I am unprepared to state, for after every experiment of my own, rain fell from ten to fifteen days. I can only assert that, in the interval, the salted portion of the field was in every respect, much superior to the remainder.

5. *Organic absorbents.* It is not merely necessary that atmospheric gases should be inhaled by the agents which the vigilant care of the farmer may have provided, but to render his labors and knowledge more effectual, they must possess the additional merit of retaining them. The atmosphere is the matrix of manures; these, however, are so subtle and evanescent, that they quickly escape, unless elaborated into permanency by the use of vegetables in a hardened form. The valuable properties of organic matter in a state of putrefaction, if buried in the earth, are absorbed by plants, and "exactly that portion of manure which is lost by the custom of rotting it before it is employed, becomes the parent of a great crop." The most common and yet the most esteemed retentive atmospheric absorbent,

with which I am acquainted, is the leaves of the pine.* When mixed with farm-yard or stable manure, especially if a little salt has been added, it forms a highly fertilizing compound. In attracting and preserving the gases and vapor of the atmosphere, lies, however, its great virtue. In a drought, if applied a few inches thick around each hill of corn, considerable moisture, under the heaps, will be seen in twenty-four hours, and shortly afterwards, the field, should the farmer's operations have been so extensive, will prove the efficacy of this simple experiment. At the late session of the Legislature, a member of the Senate informed me that the last summer he employed pine-leaves for his growing crop of potatoes with the happiest results. During the drought, he filled the alleys with this material. At the time of harvest potatoes were found on the earth below the trash.

Though unable to speak with precision of the difference between this section of his field and that on which no leaves had been placed, yet the product of the one was far greater than that of the other. To determine a question of vegetable reproduction, in 1841, near Brest in France, on a few rods of poor land, untitled, and which received no ulterior attention, grains of wheat were strewed, and then covered with wheat straw about an inch thick. In despite of excessive droughts during the spring, prolonged and several times repeated, while all around was dropping and uncertain, the protected wheat sustained no injury. When the plants matured, the straw was found to be "more than six feet high, and in the ears were fifty, sixty, and even eighty grains of wheat of full development." A satisfactory explanation of this experiment, remarks a French writer, is found in straw being a bad conductor of heat, and a good conductor of electricity. The roots consequently were maintained in a medium temperature, and the moisture of the earth furnished by the straw, facilitated the absorption of carbonic acid from the atmosphere. As pine leaves contain a much greater proportion of nutritive juices, they should always be used if obtainable, in preference to the straw or leaves of other trees for any crop.

Having already extended this communication to an unreasonable length, I will merely add, that the true and permanent interest of the agriculturist is to be found in preparing against the vicissitudes of the seasons, and not in weak and uncertain attempts to mitigate their influence. Deep ploughing, loosening effectually, the texture of the soil, and a bountiful supply of appropriate aliment, are the surest means for the accomplishment of that purpose. While a parsimonious use of manure is sure to develop slender returns, it promotes slowly but inevitably the deterioration of the land. It is better then, to cultivate a few acres to the plough, or laborer, furnished abundantly with enriching materials, than treble the number without nutriment. These truths were practically enforced, in the palmy days of Egyptian agriculture. The Roman husbandman was considered blessed who owned seven acres of ground.

In England, twenty or thirty acres constitute a good farm, and in China, for one-third of that quantity a large family is well supported. The grass lands in the immediate neighborhood of Edinburgh rent for \$100 the acre is supplied by many of the

*"Oak leaves," says Thaeer, "are not easily decomposed, and contain an astringent matter which is highly injurious to vegetation as long as the leaf remains undecomposed."

farmers, and instances are not unfrequent of ten acres thus fertilized, yielding in money \$5000.* To us the full power of land is unknown; indeed, no where has it been ascertained that there is a limit to production. The period perhaps has arrived, when not only the advancement of their pecuniary welfare, but it may be the preservation of the domestic institutions of the South, depends on a radical change in the habits and practices of the tillers of its soil. If in relation to this State, the distressing visitations of the last summer have the effect of arousing the attention of our agriculturists to the necessity of union among themselves, with a view to a free and full interchange of opinions in matters pertaining to their common vocation, they may yet have ample cause to be grateful to a merciful providence, for the calamity with which they have so recently and heavily been afflicted.

WHITEMARSH B. SEABROOK,
Pres. State Agricultural Society of S. C.

* Farmer's Register.

WINTER FOOD FOR STOCK.

RESULTS OF INDUSTRY AND INTELLIGENCE.

MR. BATEHAM:—In compliance with your request, I will now give your readers some account of my substitute for hay, during the past summer and winter. And first,

SOWED CORN.—Early in the spring I sowed about half an acre of corn for the purpose of soiling my cows during the dry weather and short feed of the latter part of summer. June 1st, I sowed another half acre for the same purpose, (both of which I had finally to save for winter fodder.) July 1st, I gave up all hopes of a hay crop, and on the 3d and 4th, turned over two acres of sward land, and sowed one to corn, two and a half bushels. (I would use more rather than less seed,) and the other to Millet, half a bushel of seed. The first corn sowed was cut down two or three times with the frost. After that, all grew well. Sept 1, I mowed the first acre, and let it lay on the ground nine days, turning it once in the time. It was then raked up and carted in. It seemed to be well cured (had no rain on it.) But in the mow it heated a little, but not so as to prevent cattle from eating it, but so as to turn the leaves brown, and probably make it less nutritious. Soon after, I cut the last acre, (sowed in July) with a sickle, bound it in small bundles, and shocked it up immediately. These shocks stood in the field till November, then were carted in and stood up all over the barn. The fodder was well cured, and remained bright and sweet all winter.

The first sowed was very much injured by a neighbor's hens. There was no estimate made of the amount of fodder, I can only say there were four large cart-loads. The last acre was examined and estimated by a number. None put it at less than seven tons when fully cured. My own opinion was that it was above that amount. It was an exact measured acre.

MILLET.—As stated above, I sowed one acre of Millet, July 4th, on sward land, turned over once. Owing to the extreme drought, it was impossible to plow the land well, and the seed (both corn and Millet) was sown immediately upon the furrow, and covered with the harrow. The Millet grew very rank, tall and coarse; it stood some seven feet high on an average. It was cut with a cradle; and handled like wheat [after laying a few days].—There were

between three and four tons of fodder well cured. It stood in the shock some four weeks after it was bound up.

ROOTS.—About the middle of June, I sowed in drills a piece of land three rods wide and ten rods long, to sugar beets and mangel wurzels. The land was well manured with coarse stable manure, and plowed four times at intervals of about two weeks. It was very mellow and fine, free from weeds, &c. One thorough hoeing and thinning the plants was all the attention it had after planting. I ought to say though that the thinning continued most of the summer, and consisted in taking up a wheel barrow load twice a day, which made fine food for the milk cows, and kept increasing the distance between the plants as they needed. Probably I thus went over the whole piece once in ten days. The beets were harvested the second week in November, [they kept on growing till then] and from this piece of ground, I had nine wagon loads. The mangel wurzel were much the best. [I have always found the mangel wurzel to do the best in a dry season, and sugar beets in a wet one. I usually sow both, and never fail of a good crop of one at least.]

Now for the result. With this fodder and roots, and a trifle of grain, [not to exceed the value of two ears of corn a day for each] I have kept two horses, one yoke of oxen, three cows, and three young cattle through the winter. The horses and oxen have worked more than half the time.—And all are in first rate order this spring. None of them have seen a lock of hay, and I never had cattle in better plight in the spring. This I count a very favorable result, seeing that the snow covered the ground November 20, and the winter has been unusually severe; I have not had to buy a penny's worth of feed. My cattle were very fond both of the corn and Millet, and seem to eat it as well as they ever did the best of hay.

The great cost of the corn was in the harvesting. It took ten days labor to secure the acre we reaped, and it was hard labor too. If I knew of some better way [easier and quicker] to harvest it I should count it a great relief. But at all events, I intend to sow more as early this spring as it will be safe from frost. I will only add that both corn and Millet need a great deal of curing, as the stalks are large and full of saccharine matter, and easily heat.

Northeast, O., April, 1846.

A CONTRAST.—The foregoing communication contains much valuable instruction for farmers, and the writer has our thanks therefor. In a note appended he says, 'one of my neighbors became alarmed about keeping his cattle, and went south just about the time I sowed my last corn, to find hay for them. He was gone nearly six weeks in mid summer, to find and cut his hay. And then in the fall he drove off his cattle, and has spent the winter there in feeding them. He has not yet returned. He has with him only seven head, and they have cost him his winter, and six weeks of summer time. It should be stated that he is not able to take an agricultural paper, [never did take one] else perhaps he might have learned some better way.'—*Ohio Cultivator*.

IF you have a valuable milch cow that should chance to go dry too soon, or before her milk is gone, procure a young calf, and put it to her. This will preserve her milk against another season. "It is well known," says a distinguished author, "that if a cow goes dry one season, nature loses its power of acting in future."—*Mc. Cull*.

For the American Farmer.

TO THE YOUNG FARMERS OF MARYLAND. AGRICULTURAL ACCOUNTS.

Section III.—(CONTINUED.)

Interest and Land accounts.—In stating these accounts to be inseparable, we mean to convey that whatever transaction arises under the former affects the latter; and not that they are one of the same account, by any means; for we have always preserved the proper distinction.

Interest, under some form, is the pervading incubus which rests, with sleepless torture, upon the agricultural body.—The merchant, or trader, when money is "easy," with ten thousand dollars in "facilities," called capital, can "operate" to the amount of one hundred and twenty thousand dollars per annum, with the assistance of some "FARMERS" Bank discount list, to the amount of twenty thousand. But his *interest account*, being some three thousand dollars, would consume the whole gross amount of the farmer's crop, whose *bona-fide* capital, invested in land, tenements and stock, amounted to fifty thousand dollars. And, to sustain this "small" merchant's transactions, it follows that a gross agricultural yield of one hundred and twenty thousand dollars, or two millions of dollars worth of landed estate, at 6 per cent. is annually requisite; as the money, however artificially "raised," must be based either on the raw staple which produced the goods, or on the products themselves. The abundance or scarcity of specie cannot affect mercantile transactions much, so long as a paper currency can be enlarged, or contracted to meet the fluctuation, and is received as a valuable, if not legal tender, in payment of bank accommodations, and government dues.

Before entering into a detailed explanation of Interest, as it forms a part of the farmer's accounts, we avail ourselves of the opportunity of expressing, in common with many wiser, that a statute regulating the rate of interest, is subversive of one of the first principles of trade—that of demand regulating supply, and *vice versa*. No common law, we apprehend, can be traced to the time when seven, or any other particular rate for the use of money, constituted, *per se*, usury.—True, there have almost always been laws enacted to regulate the rates of interest; as we see in the Twelve Tables, where one per cent. was the rate; but those very founts of the civil law, betray such excessive cruelty in the adjustment of accounts between debtors and creditors, and so much ignorance of mercantile law, that instead of revering them as oracles of jurisprudence, we should adduce them in argument to support our present views.

Cicero, at a much later period, is said to have asserted, that "the owner of a cargo of corn reaching a port where there was a famine, and aware that there were other vessels with corn on the way thither, had no right to demand an exorbitant price, although money might be plenty—but should inform the inhabitants of the fact"—and, of course, destroy his market!

The Mosaic law in respect to usury, which is the one on which all later enactments have been based, applied as well to grain or food, as money; and was decreed for a special purpose.—It was to preserve the distinction between the twelve Tribes, that it was ordained (see c. 5. Deut.) should not be exacted of a "neighbor"—i. e. one of the same tribe. But of the "stranger," two bushels might be exacted by previous agreement, for one loaned. One per cent., is as

much usury, in a moral sense, as twelve.—The Latin word "usus" from which is derived the term "usury," simply conveys the idea we attach to "use"—and in former ages, as both history and romance attest, a money lender was called a "usurer," or one who kept a stock of ready money to be "used" for a "consideration," as Fagan would say, or as "gingling Geordie," King Jammies' Goldsmith, might have said.

Among others, one of the chief objections to a statute "rate," is the absence of uniformity between the several states, and between this and Europe.—But as they *do* exist, it was a wise act of the legislature of New York, to fix the rate of that state at 7 instead of 6 per cent. Our money market is at this present moment, *feeling* the action of this law. All good things are liable to abuse; but so long as in law, a man is considered competent to manage his own affairs, and so long as no compulsion can be exerted on the part of the lender; the borrower, it must be assumed, is capable of reducing to a state, approximating certainty, the fact, as to whether, for some future benefit, or from the value of his property, in proportion to his present want, he is justified in contracting at the price demanded.

There will always be a proper sense of odium expressed of that man who would, and who *does*, notwithstanding a positive law, take undue advantage of a fellow man's necessities, to inveigle and ruin him; while the plea of usurious interest, under an enactment, to evade the payment of a just claim, in itself, will scarcely fail to receive a corresponding censure, at the hands of public opinion.

It is a trite adage in law, that a statute which causes that, which is, in itself, innocent, in a criminal sense, to become a crime, not only fails to remedy the evil, but by causing frequent evasions, aggravates it.

An "accepting commission," as it is called, for which 2½ per cent. is charged the farmer by his agent, for the latter's "promise to pay," is as usurious as a "negotiating commission," exacted by "street" brokers, to be paid before closing the transaction, and so worded, as to evade the penalties of the law.

No doubt it is a great accommodation to the farmer who is generally "pushed," in anticipation of the maturity of his crops—and this is the very ground we are assuming.—The only question is, whether life is justified in doing so, and whether his being in honor bound to consign his produce to the house so accepting,—whose only object is to "realize" and "cover advance"—may not involve more serious losses—losses which the farmer cannot sustain with impunity,—deprived as he is of the control of his own productions, and at the mercy of his agents, who wish to meet the very draft accepted for his use, out of the proceeds of his sales, and not out of their own capital; to say nothing of the Bank discount he has paid; which is legalized usury; or how could they pay a dividend of the legal rate of interest, besides expenses and accumulating profits. Not, surely, out of transient deposits and circulation.

But what is too frequently the result? His wheat, corn, tobacco or cotton is absolutely mortgaged.—If his crops fail, which is not rare, and he be a man of his word—a real mortgage has to be created on his place, or an accommodation note manufactured, which almost invariably ends in the forfeiture of his estate, and entire loss of the means of livelihood. Owing to similar causes, thousands of bushels of wheat have been sacrificed the past year, at 75 to

85 cts.—which would since have commanded 1.25 to 1.40 in Baltimore, could the growers have held on to it. A great scarcity of water, an average crop, and idle funds in the hands of millers last August, depressed the grain market, injured the farmer, who was forced to sell, and enriched the miller, who did not want to buy.

Money, although not absolutely a commodity, is the representative of all commodities alike—an ounce of silver is no more a dollar, for all business purposes—its imperishability and convenient size, combined with a certain scarceness of the mineral, constitute its mercantile value, and not any intrinsic worth, arising from the fact of its being silver or gold. There can be but little doubt but that six per cent. is near the average premium on ready money, in this country; and if so, were the rate not regulated by enactment, the supply from abroad, to meet the real demand, based upon the agricultural products, would always preserve a proper balance, and prevent the rate from exceeding the actual demand, on good paper. Probably it would often fall below this rate, if uncontrolled by law.

In creating mortgages, Land account has nothing to do with the transaction, unless it be foreclosed; then, as in an ordinary sale, Land account should be credited by the nett proceeds.

Interest account should each year, or other period, be charged to the individual of whom the money was borrowed, and if it be regularly paid, he will then be chargeable to the cash—or Interest account, may at once be charged to cash, for the amount.

Mortgages carry compound interest, which doubles, or amounts to the principle, in twelve years—but by stipulating to pay it each year, supposing the mortgage to extend to twelve years, you gain the use of nearly five years interest on the sum borrowed; as at simple interest, of six per cent., it requires sixteen years and eight months to double.

There are no circumstances, under which an entry can be made of Land account, Dr. to Interest account. If your investment in land do not pay simple interest, the corresponding credit, which would appear in interest account, would seem to be so much profit—no money is paid out in the interest lost, or rather not made, therefore none can be charged.

Nor do the profits of the place go to the credit of land account—The losses and profits pass from their several particular accounts, into Loss and Profit account; the balance from it, whether debit or credit, passes to the debit or credit, as the case may be, of your own personal account, which exhibits the nett receipts of the place and your personal expenses.

Land account is, however, chargeable for taxes, and permanent improvements, such as ditching and stone fencing—But all perishable improvements, such as post and rail fencing, road making and grubbing, should go into charges account.

The expenses of clearing new ground may with propriety be charged to Land account, as in case of sale, the increased value it is natural to suppose, will offset the outlay.

To adjust the interest charges on the several branches of floating means, representing certain portions of your substances, when taking an inventory, to ascertain the value of the several branches on hand, deduct the interest, as so much loss, from the value.

Having already destroyed much more paper and ink, than we had any idea of, when commencing this treatise, we shall now close with stating, that in one

more section, we propose explaining Loss and Profit account and the balance sheet, by closing the imaginary entries, used in the outset, and adding such other entries as will be needed, to place the entire system before you.

Yours sincerely,

CINCINNATUS.

[ERRATA.—In the last number, on page 293, 29th line from the bottom of second column, for "I & H. as Emanuel," read "HE, as Emanuel."]

PREPARED MANURES, AND THEIR EFFECT UPON CROPS.

At a meeting of the American Agricultural Association, held in New York on 7th Jan., Mr. R. L. Pell read a valuable essay upon the subject of prepared manures, and their effects upon his crops for several successive years, after which he directed the attention of the Association to the importance of introducing the Peruvian Alpaca into this country. He presented a specimen of their wool. It was moved that a committee of three be appointed to investigate the subject, and bring it before the Society at a future meeting.

A motion was made that a committee be appointed to inquire into the subject of the waste manures of the city, as alluded to in Mr. Pell's essay, and to suggest such means as would enable the city to be relieved of this nuisance, and at the same time benefit the agricultural community by furnishing them with a valuable manure.

The following is the essay of Mr. Pell, which we copy from the American Agriculturist:

Prepared Manures, and their effect upon Crops.—Mr. Pell rose and said: By analysis it is known that all cereal grains, cruciferous and leguminous plants, trees, and shrubs, require in the soil the same chemical substances, but in different quantities. These are eleven, viz: potash, soda, lime, magnesia, alumina, oxide of iron, oxide of manganese, silica, sulphuric acid, phosphoric acid, and chlorine. If one be absent, the soil will not grow any cultivated plant. Hence analysis of soils is necessary for a proper and economical application of manure. In a barren soil one necessary ingredient alone might be absent. If, then, ten ingredients be added and the eleventh kept back, the soil is still barren. Hence, the reason why so much of New York will not grow wheat, and yet will grow other grain: the requisite quantity of some one or more chemical ingredients necessary for wheat is absent, but in sufficient quantity for rye, &c. When, at last, cultivated plants cease to grow, the five-finger vine appears, as it requires still less of them. In such a stage it is not rare that an expense of three dollars per acre will enable soil to produce thirty bushels of wheat. I produced 78½ bushels of wheat on a piece of worn out ground, by fifty cents worth of two ingredients. Like produces like; and hence if straw of wheat be given to the ground it will produce wheat: indeed, wheat may be grown on a pane of glass, if the seed be covered with wheat straw in a decomposing state. Hence the farmer may sell the grain but not the straw. The farmer who sells straw becomes poor; he who buys it, grows rich.

I apply straw to the cattle-yard; it absorbs the liquid excrement, and rots. What is long or partly unrotted I apply to hoed crops; what is fine I mix with the eleven requisites and apply as a top dressing. It may be advisable to apply the straw to the ground and plow it in when unrotted. To grow grains give the soil straw of its kind; for potatoes, their vines; grapes their vines; to apples their branches; and so

of all. The droppings of cattle are the best manure to grow grasses, as they feed on grass; those of horses fed on grain for the growth of cereals. Onions are grown year after year by only returning the tops to the ground. In Virginia, had the refuse of the tobacco plant been returned to the soil, she would not now be barren. The bad farmer is injured by the vicinity of well manured land, as manure has an affinity for oxygen, hydrogen, ammonia, &c., floating in the air, and attracts them to the provident farmer's land.

Formerly, I applied composts of various things, and had wonderful results; I dared not omit any one, as I knew not which had produced the result. Now, science by analysis shows what is necessary. By these composts, I grew a squash to weigh 201 lbs., the heaviest on record; and a cabbage to weigh 44 lbs. By it I grew wheat to weigh 64 lbs., rye 60 lbs., oats 44 lbs. When Sprengel made known his analysis, showing that eleven substances are necessary to all good soils, I found that my compost by chance had them all, and twenty other enriching ingredients.

Previous to 1840, my orchards bore only every other year. Since then I make them bear every year: and this year, a bad one for fruit, found my manured trees full, and those not manured barren. The drought of this year was fatal to fruit; yet my manured trees had abundant moisture and were fruitful. I prefer the manure of decayed vegetable matter to the excrement of cattle, as the material that makes and supports the animal has been extracted, and the excrement is not so rich on that account. If the vegetable matter be rotted and its ammonia fixed by charcoal dust, all the chemical substances are present. Thus rotted vegetable matter is more beneficial than the dung of cattle, quantity and quantity alike.

A most valuable manure is the liquid remaining after the boiling of bones. It is very offensive unless disinfected. When hot it is not offensive, but becomes so when cold. It is a jelly when cold. By the application of charcoal dust to the hot liquid, the jelly when cold is not offensive. In this state it may be made into compost with other substances. In that condition it is a most valuable manure. At present large amounts of the liquid are thrown into the rivers. I prevailed upon a grinder of bones to save his liquid by charcoal, and he now sells what formerly he hired carried away. I have used it with great advantage, both on arable and meadow land.

Charcoal is one of the most valuable manures. It is the most powerful absorbent known. It takes from the atmosphere oxygen, hydrogen, nitrogen, ammonia, &c., and holds them while the weather is dry. During rain it absorbs 80 per cent of water, and releases the gases to descend to the earth to fertilize it. When the weather becomes dry it parts with the water, and absorbs from the air the gases again. This it continues almost perpetually, as it is nearly indestructible. When applied to the earth, the trees, plants, and grasses are found to have it adhering to their roots ready to impart gases and moisture as wanted. Trees packed in it have remained green for 80 days, while others without it have died in like circumstances. Hams and salt meats are preserved perfectly when packed in it. I preserved apples in perfect condition for one year in it. If spread over compost heaps, barn-yards, stable-floors, in privies, it absorbs the ammonia, prevents offensive smells, fixes the volatile gases, and thus makes a valuable compost.

Ashes applied to sandy soils are valuable; and on some soils leached are as good as unleached. I have known land too poor to grow 8 bushels of corn, made

to produce 45 bushels by ashes alone; and they are more valuable on a sandy soil than any other manure except marly clay. They enable the sandy soil to retain its moisture, a great point. They are used to great advantage on Long Island and in New Jersey. They stimulate growth as does plaster. Sown broad cast on grass, the effect is perceptible at a great distance. The yield the first year on sandy soils in grass, will pay the expense of applying forty bushels to the acre. They give to the soil silicate of potash, which is needed to form stems.

Ashes have two actions on soils, viz., chemically by alkali they neutralize acids; and mechanically by rendering sandy soils more tenacious. Muck is made valuable by them, when mixed in compost; the acid of muck is destroyed by the alkali, and fermentation follows.

Lime has been used by me to great advantage. I prefer oyster shell lime, as it contains no magnesia, which most stone lime does. I think oyster shell lime has a tendency to lessen in growth the stem and leaves, and increase the fruit and seeds. I put on barren or worn out land 300 bushels oyster shell lime, and it grew wheat to the weight of 64 lbs. per bushel; with the wheat I sowed one bushel of cloverseed and half a bushel of timothy seed per acre, and the next year cut 2½ tons, and the second year 3 tons of hay per acre. I have found it of great advantage in potato culture; the potatoes do not rot in the ground, while neighboring unlimed ones *all* do. They are mealy and fine, and do not rot after gathering, and have been free of rot in dry, wet and average seasons. I think it destroys the fungus or insect, if either be the cause of rot.

Bone dust I have used and find it most valuable, and advise its use, especially on soils long cultivated, destitute of phosphate of lime; it is the most efficacious manure that can be used on an exhausted soil, but will do better on dry calcareous soil than on such as contain alumina. It should be mixed with earth to ferment before spreading. There should be used from 12 to 20 bushels to the acre. It seems best on turnips. In compost, it is valuable, as it yields phosphates largely. It is said that in England, where on lands it had been applied 20 years before, its effect could be seen to a yard. I trust the exportation of bones from our country will soon cease.

I have used guano successfully and unsuccessfully. Mixed with earth and applied to plants in close contact it was injurious; applied in weak solution to grass land and green house plants its effect was wonderful. My experience shows that its *method* of use will determine its *value*. In composts I have found it very effective.

Night soil is one of the most valuable manures. In this country, as well as in England, great prejudice prevails against its use in agriculture or gardening. For ages it has been used in Asia and particularly in China. In France, Belgium, Bohemia, Saxony, all the German confederacy, and Sweden, its destruction or waste is prohibited by law. In England and America it is thrown into the rivers to befoul them, and the fish which devour it are eaten instead of vegetables grown by it. As manure, 6 loads of it have been found to produce 650 bushels per acre of potatoes, while, on the same ground, 120 loads of horse manure yielded only 480 bushels.

In conclusion, I have to remark that the main stay of the farmer is his barnyard manure. Yet this varies in quality, according to the material of which it is made, and the manner of making. Thus the droppings of cattle fed on straw and turnips are far less

valuable than those of cattle fed on hay and oil cake; and it is economy to feed hay and oil cake rather than straw and turnips. So in manuring; that which is leached by rains and volatilized by the sun is less valuable than the unleached and ununsuned. But this is too extensive a subject to take up, and is so well understood by good farmers, that it is unnecessary to say more on the subject.

TIME FOR CUTTING TIMBER—GREEN CROPS.

At the meeting of Jan. 6, R. S. Livingston, Esq., made the following written communication on the proper season for felling timber:

For the last fifteen years my practice has been to cut wood for timber and farming purposes, in the spring and beginning of summer. I believe that when wood is cut at these times and stripped of its bark, it is not only tougher, but stronger than when cut in the winter; carriage-makers prefer it for spokes.

I know that the prevailing opinion is, that wood should be cut in February, (when there is said to be the least sap in the trees,) if *solidity and durability* be required. It was formerly my opinion. Experience and observation have led me to doubt it. Experiments made to ascertain when there is most sap in trees, have, I believe settled it, that there is *as much in summer as in winter* (!)

Every farmer knows that wood stripped of its bark, immediately after being felled, seasons very rapidly—indeed, too rapidly, if exposed to the rays of the sun. Wood cut in winter, cannot be stripped of its bark; it must be hewed off, and this operation is attended with a good deal of expense. The sooner wood is housed after being stripped of its bark, the better. It will season slower, but more uniformly and perfectly.

In Holland, the practice has been for many years past, to cut timber in summer—formerly in winter. But as a general rule in Europe, they cut in winter; yet in several of the Royal forests they cut in summer at the present time, having found (as it is said,) that timber seasons more perfectly when the sap is thin, as it always is in summer, than when thick, as it is in winter.

Respectfully submitted,

R. S. LIVINGSTON.

Col. Clark.—The opinion formerly entertained was that sap remained in trees during winter.

President Tallmadge.—Those who contend for the cutting of trees when full of sap, must pursue the plan of housing them after being felled, for if left exposed to the influence of weather, decay is certain.

In the spring of the year sap is watery, but as the season advances, it becomes more thick, gummy. If flexibility of the timber is desired, it is probably best to cut in the spring, while the sap is thin and watery. Some wood, hickory for instance, when cut full of sap, and put upon the fire, pours out of either end, a large quantity of sap.

The discrepancies between the theories of gentlemen can be reconciled by this difference in the mode of treating timber after it is felled. The housing may render it as good as if winter cut without the protection.

Mr. —. It is generally understood by practical men that timber should be cut some time between December and March. Timber thus felled, is better both for fire-wood and other uses. Timber immersed in fresh water, is preserved indefinitely, but in salt water its decay is rapid.

Col. Clark.—In salt water, some worms, as *Teredo*

navalis, destroy timber; in fresh, there are no such destroyers.

Mr. Jeremiah.—Some prejudice exists among farmers against green crops for manure. It seems to me a subject well worth inquiry. We ought to examine it thoroughly.

Mr. Fleet.—Professor Low says the fertility of the soil is increased more by passing the crop through the animal than by plowing it in. But circumstances must establish rules. Where the cartage of the manure is necessarily far, it is less expense to manure by turning in green crops.

Mr. Hawley.—When you can get one good crop of clover turned, you are sure of a fair crop of wheat after it. Some years ago, I became possessed of an exhausted farm, on which nothing would grow, and there was no manure within my reach. On or about the first of June, I sowed buckwheat on it, after giving it plaster. When the crop was near flowering, I went over it with an inverted harrow, then plowed it in, and next season I got fifteen bushels of wheat per acre from it. I rely now upon turning in green crops for manure. I have seen lands which had been well burned over long ago by Indians: they were in bad condition: upon clover being planted and turned in, there were got from them, twenty bushels of wheat and fifty bushels of corn to the acre.

After taking off three crops, then again renew the clover, and when grown, let your cattle in to tread it down, then plough it in.

The good effect of buckwheat turned in, is very apparent. It renders the soil light and porous.

Dr. Townsend.—Clover is deemed best for this purpose. It has a long tap root which strikes deep, and seems to answer as a sort of subsoiling operation. I think it the best in the world.

President Tallmadge.—But does not clover require nearly two years growth to do all this good? while buckwheat is fit for turning in in two months and a half.

Mr. Townsend.—One advantage of clover is, that you can sow it at times when you have nothing else to do—in February or March, on the top of snow, if there is any.

Col. Clark.—Indian corn has fine properties for the purpose of manure. You can cut off the tops of your corn, sow broadcast three times in the season, taking care not to cut so low as to prevent further growth, and after all turn in the stalks with great advantage to the soil.

Judge Van Wyck.—Buckwheat cannot be compared with clover as a manure crop.

Dr. Underhill.—Clover or corn will furnish far more nourishment to the soil than buckwheat, but one full crop of clover is worth three of buckwheat, for other purposes.

CHEMISTRY & AGRICULTURE—CHARCOAL.

Dew, rain, and snow, exhibit very sensible traces of ammonia, and this principle—highly advantageous, and even indispensable to vegetable development and health, is lost by evaporation unless absorbed and fixed by some substance capable of intercepting and retaining it for the use of plants. The experiments of chemists, clearly demonstrate the fact that common charcoal may be used for this important purpose with perfect success, as it is capable of absorbing ninety times its weight of ammoniacal gas, with which it parts on the occurrence of every rain, and is thereby carried into the soil, where, partly, no doubt, by the voltaic action exerted by the spon-

geoles of plants, it is introduced into the vegetable system and circulation, and becomes the principal source of the nitrogen so indispensable to their health and growth. We are not warranted, perhaps, in regarding charcoal as a manure in itself, as it is a substance nearly, if not quite, indestructible, but it is nevertheless capable of exerting the offices of such, and may be regarded as a most efficient caterer of the food of plants, and which it does most munificently provide. The absorption of ammonia and carbonic acid—the latter of which is as essential to vegetable health and increment, as the former, at least in some degree, is not confined to humid seasons, or falls of rain or snow: It constantly absorbs both from the atmosphere, and retains them in such a way and under the control of such laws as render them at all times easily available by the roots of plants. When applied to the surface of soils previously enriched by the application of putrescent manures, it seizes upon the volatile gases which are liberated during decomposition, and thus preserves them from dissipation and waste.—Some farmers are in the practice of applying ground charcoal to the surface in the fall and winter, and speak of its action as salutary.—*Maine Cult.*

CHARCOAL IN WHEAT.

In a former No. we noticed the fact that Mr. Haywood, of Buffalo, had made some experiments with charcoal, which had proved eminently successful.—The New Genesee Farmer furnishes the following more particular statement thereof:

By all means remember that it is far better to sow but five acres, and so feed the plants that they will give you forty bushels per acre, than to sow fifteen acres, and starve the young wheat plants down to twelve bushels per acre, and have even that badly shrunken with rust. Don't forget that it takes less seed, and fewer hard days' work to raise 200 bushels on five, than on fifteen acres of land.

Nothing is more common in Western New York, Pennsylvania and Ohio, than for land to be too rich in vegetable mould, to bring good wheat. The straw grows too rank, and thick, and is very liable to be affected by rust. To prevent this latter malady, Mr. Haywood of Buffalo, has used charcoal with signal success. Mr. H. is the owner of a tract of splendid wheat land near Sandusky, Ohio, where he has two flourishing Mills. He has kindly furnished us with a plot of seven wheat fields, taken for experiments last season, with the results, which follow:

No. 1—50 acres—applied fifty bushels of coal, ground fine, per acre. Yield 25 bushels per acre.

No. 2—4 acres—no coal applied; wheat badly rusted; yield 5 bushels per acre.

No. 3—15 acres—coal as in No. 1; yield 25 bushels per acre.

No. 4—25 acres—coal as in No. 1; yield 35 bushels per acre.

No. 15—5 acres—coal; yield 25 bushels per acre.

No. 6—8 acres—no coal; yield 5 bushels per acre.

No. 7—6 acres—no coal; yield 3 bushels per acre.

Note.—No. 4 was seeded with old wheat.

The soil, culture, &c., were precisely alike, except the use of fifty bushels of coal per acre, as designated—sown in April and May. The soil abounds in lime and organic matter.

Mr. Haywood will apply 10,000 bushels of coal

to the fields to be sown in wheat this autumn. It costs him \$30 per 1000 bushels. He grinds it in a common bark mill used by tanners.

From the N. O. Commercial Times.

VEGETABLE OILS.

The present depressed condition of the cotton growing interest being occasioned solely by over-production, it has been a matter of the first importance to have other crops pointed out and introduced which may be profitably grown by the corn-planter.

Amongst others, those plants whose seeds yield oil in sufficient proportion may be introduced with profit and advantage. Unlike cotton and sugar, they require no extensive and costly buildings or machinery for their preparation for market; they are always in demand at paying prices. It seems to be universally conceded that those oleiferous seeds, grown in a Southern climate, are richest in oils. Ure says: "The quantity of oil furnished by seeds varies not only with the species, but in the same seed, with culture and climate;" and his tables show that warmth of climate is necessary to richness in oil; they are out of the way, and may even be sent off to market before the cotton-picking season begins; they will form part of a rotation of crops particularly adapted to our farm-practice; and the manufacture of oil is one that can be advantageously introduced amongst us—requiring no immense buildings, or other great outlay, no introduction of free and expensive operations, and the oil and oil-cake can all, or a great part of it, be consumed amongst us. It needs but a sufficient supply of seeds grown in the South, to cause the immediate establishment of oil mills through that section.

Should we have war, the price of vegetable oils will be at once enhanced; and, in such an unhappy event, as war, it becomes of great importance that we have a sufficient home-supply of oil, as of every other necessary of life.

The following forms part of a list of those plants which yield the ordinary unctuous oils of commerce, as given in Ure's Dictionary of the Arts, Manufactures, &c.:

Linum uscatissimum et perennans	Linseed oil	11 to 26 pr. ct. of oil.
Canabis Sativa—Hemp oil	-----	14 to 25 " "
Sesamum orientale	Oil of sesamum or bene	30 per ct.
Cucurbita pepo and malapepo—Cucumber oil	-----	15 "
Helianthus annuus and perennis—Oil of sunflower	-----	15 "
Brassica napus and campestris—Rape seed oil	-----	33 "
Ricinus communis—Castor oil	-----	62 "
Arachis hypogaea—Ground nut oil	-----	69 "
Gossypium barbadense—Cotton seed oil	-----	69 "
Brassica campestris oleifera—Colza oil	-----	36 to 40 "
Brassica præcox—Summer rape seed oil	-----	30 to 36 "
Sinapis alba, nigra, etc.—Mustard seed oil	-----	15 to 38 "
Cucurbita pepo—Pumpkin seed oil	-----	60 "
Madina Sativa	-----	60 "

To these may be added, as affording abundance of oil, though from the fleshy pulp surrounding the seed, and not from the seed itself—the olive, *olea Europea*. There are various nuts, too, which afford a large proportion of oil, as the walnut, almond, beach, plum, cherry, apple, horse-chestnut, or buckeye, etc.

"Nuts contain about half their weight of oil; the seeds of the *brassica oleracea* and *campestris*, one third; the variety called *colza*, in France, two-fifths; hemp seed, one-fourth; and linseed from one-fourth to one-fifth."

"In close vessels, oils may be preserved fresh for a very long time, but with contact of air they un-

dergo progressive changes. Certain oils thicken, and eventually dry into a transparent, yellowish, flaccid substance, which forms a skin upon the surface of the oil, and retards its farther alteration. Such are said to be *drying* or *siccative*, and are used on this account in the preparation of varnishes and painters' colors. Other oils do not grow dry, though they turn thick, become less combustible, and assume an offensive smell. They are then called *rancid*."

"Several fat oils, mixed with one or two per cent. of sulphuric acid, assume instantly a dark green or brown hue, and, when allowed to stand quietly, deposit a coloring matter, after some time. It consists in a chemical combination of the sulphuric acid with a body thus separated from the oil, which becomes, in consequence, more limpid, and burns with a brighter flame, especially after it is washed with steam, and clarified by repose or filtration. Any remaining moisture may be expelled by the heat of a water bath."

"*Oil of colza* is obtained from the seeds of *brassica campestris*, to the amount of 39 per cent. of their weight. It forms an excellent lamp oil, and is much employed in France."

"*Hemp seed oil* has a disagreeable smell, and a mawkish taste. It is used extensively for making both soft soap and varnishes."

"*Linseed oil* is obtained in greatest purity by cold pressure; but by a steam heat of about 200 deg. Fah., a very good oil may be procured in large quantity. The proportion of oil usually stated by authors is 22 per cent. of the weight of the seed; but Mr. Biundell informs me, that, by his plan of hydraulic pressure, he obtains from 26 to 27. When kept long in a cask partly open, it deposits masses of white stearin along with a brownish powder. That stearin is very difficult of saponification."

"*Mustard seed oil*.—The white or yellow seed affords 36 per cent. of oil, and the black seed 18 per cent." It is perfectly bland, and is used in the wool-len factory, for soap-making, etc.

"There are three kinds of *olive oil* in the market. The best, called *virgin salad oil*, is obtained by a gentle pressure in the cold; the more common sort is produced by stronger pressure, aided with the heat of boiling water; and, thirdly, an inferior kind, by boiling the olive residuum or *marc*, with water, whereby a good deal of mucilaginous oil rises and floats on the surface. The latter serves chiefly for making soaps. A still worse oil is got by allowing the mass of bruised olives to ferment before subjecting it to pressure."

"*Oil of almonds* is manufactured by agitating the kernels in bags, so as to separate their brown skins, grinding them in a mill, then enclosing them in bags, and squeezing them strongly between a series of cast iron plates, in a hydraulic press; without heat at first, and then between heated plates. The first oil is the purest, and least apt to become rancid. The volatile oil of almonds is obtained by distilling the *marc* or bitter almond cake, along with water."

"*Linseed, rape seed, and other oleiferous seeds*, unless in a few very large establishments, are still treated in the old manner, in this country—by pounding in hard wooden mortars with pestles shod with iron, as in the rice mills, set in motion by a shaft driven by horse or steam power; then the triturated seed is put into wollen bags, which are wrapped up in hair-cloths, and squeezed between upright wedges in press-boxes, the wedges driven by a power similar to that used for driving the pestles. The cakes obtained by this first wedge pressure are thrown upon the bed of an edge-mill, ground anew, and subjected

to a second pressure, aided by heat now as in the first case. These mortars and press-boxes constitute what are called the old Dutch mills, and are by many preferred to the hydraulic press. Ure, speaking of the different improved mills and presses in use in England, says: "Hydraulic presses have been of late years introduced into many seed mills of this country; but it is still a matter of dispute whether they, or the old Dutch oil mill, with bags of seed compressed between wedges, driven by cam-stamps, be the preferable; that is, afford the largest product of oil with the same expenditure of capital and power."

For grinding the seed, a mill exhibited at the Mechanics' Institute Fair, at New York, by Mr. James Bogardus, is said to be most excellently adapted.

Caster oil is obtained by pressure, after the hull has been rubbed from the bean. That obtained by cold pressure is best.

MANUFACTURING QUERCITRON BARK.

Clairmont Nursery, near Baltimore, }
April 3, 1843. }

To the Editor of the American Farmer :

I notice in your paper of this month, an enquiry by one of your correspondents, as to the mode of manufacturing the Quercitron Bark. The fixtures of the mill depends on the power to be made use of—if of steam or water, it requires 3 stones, about 18 feet in circumference, and a foot thick; one for the bed, to be sunk even with the floor, on which stands an upright post, and on each side, the two other stones, on their edge, connected by an iron shaft through the upright post, and the staves secured by a pin; they should stand about 2 feet apart. The object in having the stones so close is to increase the friction on the bark—it should have rough or outside bark shaved off very clean, and ground until there are no lumps in it; the more stringy it is, the better—when sufficiently ground, a considerable portion of it will be like dust.

Another plan, by Horse-power—one stone will answer to run on a wooden floor of 60 feet in circumference.

You can make such use of the above as you see proper, and should you wish any other information on the subject, you can have it with pleasure, so far as I am acquainted.

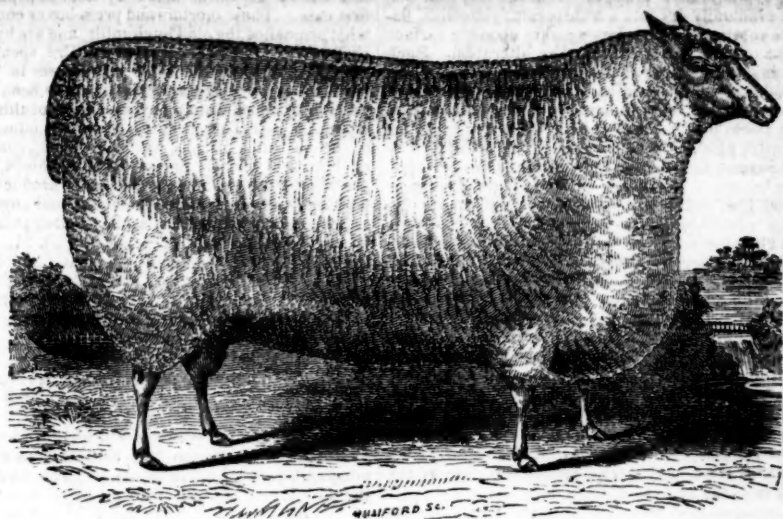
In haste, respectfully, yours,

WM. CORSE.

P. S. Any millwright knows the necessary fixtures for driving the stones, cogwheels, &c.

GUANO ON TURNIPS.—A correspondent of the American Agriculturist, Wm. P. Cleveland, of Connecticut, gives the following statement of an experiment with ashes and guano on turnips:

"I had ploughed one acre of greensward about 1st Aug. last, and divided it into equal parts for quantity and quality, as nearly as could be. On 3d Aug. on one half I spread 51 bushels unleached ashes; on the other half I sowed broad-cast, 250 lbs. guano—then sowed turnip seed broad-cast, through and through, and harrowed all in, going through and through without regard to the division. In two weeks the line of division was perfectly perceptible to the eye 100 rods distant. From that part on which the guano was sowed I gathered 113 bushels turnips; on the part ashed, I gathered only 43 bushels. The ashed turnips were gathered four or five days later than the guanoed. I commenced gathering on the 5th Nov. and finished about the 16th."



NEW OXFORDSHIRE BUCK, 23 MONTHS OLD, LIVE WEIGHT 320 lbs.

This splendid animal, the property of Clayton Reybold, esq. son and successor to Maj. Philip Reybold, of Delaware, selected by him in England, and imported without regard to expense, is a fine specimen of a breed that now carries the highest premiums for long woolled sheep at the meetings of the Royal Agricultural Society of England. The breeder of the subject of our engraving having won the following prizes at their late exhibitions, defying all competition, viz:

At Oxford, £30 for the best Buck of any age; £30 for the best shearling Buck; and £10 for the best pen of Theaves, in the long woolled class of Sheep, not Leicesters.

At Cambridge, £30 for the best Buck of any age; £30 for the best shearling Buck; and a bounty of £5 for a fat ewe, shown as extra stock.

At Liverpool, £35 for the best shearling Buck; and £15 for the best pair of Ewes and Lambs.

At Bristol, £15, being the second prize for the best Buck of any age; £30 for the best shearling Buck; £15 for the second best shearling Buck; and £5, the second prize, for Theaves.

At Derby, £10, for the five best Theaves.

At Southampton, £30 for the best Shearling Buck, (the sire of the subject of our engraving) £15 for the second best Buck; and £10 for a fat Ewe.

At the Smithfield Club Cattle Shows, for three years, the Silver Medal for the best Sheep in extra Stock, besides numerous other prizes, in the counties of Oxfordshire, Gloucestershire and Berkshire.

P. S. Mr. Clayton Reybold's address is, Delaware city, Del.

CULTURE OF SUMACH.—In September, 1843, I sent you an article on the cultivation of sumach, which appeared in your number for October. I am pleased to inform you, and the friends of American industry generally, that the quantity sent from the South for the past year, 1845, mostly from Virginia, has been equal to about ten thousand bags, equivalent to seven hundred tons, being nearly one-twentieth of the consumption of the country.

I mentioned in my former essay, that the most stringent vegetables, or those containing the largest portion of gallic acid, are raised in warm climates. Now, although the sumach sent from Virginia has been used in place of Sicilian, yet that which can be raised in South Carolina, Georgia, Alabama, and more particularly Florida, would be of decidedly better quality. I would, therefore, call the attention of enterprising citizens of those States to the article, and can promise them that they can cultivate no product that will pay them better.

I stated in my article of 1843, "that I had been informed sumach would not reproduce from the seed, it being a hybridous plant; but on consulting a Mr. Woodward, who sent the seed of our sumach to England, he says it will reproduce, as much of the seed sent there produces bountifully." He states that it should be gathered as soon as ripe, and planted soon after; so as not to become too old. This I consider an important fact, and one which our Southern planters should embrace; for by planting the seed, and mowing down the shoots three times annually, they might obtain from three to five tons per acre, with much less expense and trouble than by gathering and bringing home the natural growth scattered extensively over the country. The sumach is perennial and when once planted would last for ages, the crop when sown annually increasing until the ground became full of roots.

WM. PARTRIDGE.

[American Agriculturist.]

THE AMERICAN FARMER.

BATLIMORE, MAY, 1846.

Maryland Farmers' Club.

The next meeting of the Club will be held on SATURDAY, the 9th inst. at half past 11 o'clock, A. M. at the office of the President, in N. CHARLES ST. near Fayette.

Gentlemen disposed to join the Club are requested to signify their wishes to any of the members.

By order of JOHN GLENN, Esq. President.

SAM'L SANDS, Rec. Sec.

The engagements of the gentleman who so kindly prepared for us the paper on the Preservation of Fruits, commenced in our last, have prevented him from completing the translation of the concluding portion of it in time for this month. It will be given in our next.

In the proceedings of the Maryland Farmers' Club, at their last meeting, will be found a very interesting communication from the hon. J. A. Pearce, Senator in Congress from Maryland, to the President of the Club, detailing a very successful experiment in the cure of Lockjaw in the horse, by the use of the galvanic battery.

We would direct particular attention to the Report on the culture of Corn, in the present number of our paper, from the pen of the President of the State Agricultural Society of S. Carolina.—At the present time it will be found peculiarly interesting, and the suggestions, in general, are as applicable to the planters of most other states, as they are to those to whom they are more immediately directed.

THE WEATHER—CROPS—On Sunday last, after many weeks of drouth we were favored with a refreshing rain, which came in a most acceptable season, for the crops had been sorely suffering from the parched condition of the earth, not only in this section, but throughout a wide range of country, on all sides of us, from which we have heard. In many portions of the wheat-growing regions, where a few weeks since the wheat crop was everything that the heart could desire, a sad change had come to engender doubt as to the realization of those hopes which its former appearance had inspired. The dark green of healthful luxuriance had in many instances been succeeded by that sickly hue of the "sear and yellow leaf" which dries up the source of even hope itself, and prepares the mind to anticipate the worst. In some parts too, we have learned that the fly had been rife, adding a new source to the pre-existing cause of uneasiness. But as rain, with its restorative powers, has at last come, and as we are in the hands of that merciful and all-wise Providence who orders all things for the best, it behooves us to bear, without indulging in a murmuring spirit, with present visitations, and to look forward to the future to develop brighter and more auspicious prospects. If there be any class of society who should be resigned and look forward for support and comfort, amid appearances of blighted prospects, to the great first cause, they are those of the tillers of earth, for in the very infancy of created beings it was ordained that man should till the earth, and through the exertion of his physical and mental powers secure to himself and

kind the means of living. Deriving then, as Agriculturists do their calling from the hand of God, and occupying the first position in human society, as the products of those things which sustain and give impetus to the industry of all other classes, it is but seemly that they should arm themselves with fortitude to bear up against adverse prospects without repining. Gratitude for the favored relation in which they stand to the great human family, enjoins it upon them to do so; therefore, let none despond, but await with firm reliance, the results of the coming harvests upon that will, which, in its wise dispensations, never fails to mould the means to the end to be attained.

CHANGE OF SEED.—*Time of planting Corn.*—In a country like ours, of such far reaching dimensions, stretching as it does over many latitudes, it is impossible to prescribe a time for the operation of corn planting, for when that which is grown in the South has its first, second, and even third workings, the people of the North are just beginning to think of breaking up their ground. Under such circumstances, the prescription of a day or week is impracticable; but the Indian rule would seem to hold good in all latitudes, which is, to plant when the leaves of the oak tree have grown as large as a squirrel's foot.

Nicholas, who, in all matters of the kind, is good authority, says, that a change of seed is advisable with this grain, as with all others, but that a change of seeds grown on different soils is, perhaps, the most requisite, and that changes ought to be rather from East to West than from South to North; that if it be carried from the South to the North, the crop will be large, but will not ripen before the frosts, whereas if it be carried from the North to the South, it will ripen earlier than requisite, but the crop will be small.

GUANO—In the present No. will be found seasonable hints for the use of this manure, from the British Farmer's Magazine. Of the intrinsic value of Guano, as a powerful manure, we have never entertained a doubt since we first saw its analysis, and became familiar with its constituent elements, and we are glad to find, within a few days past, that the price of the article, Peruvian, Bolivian and African, has materially declined in our market.

A number of our best farmers intend making experiments, with the several kinds, upon the corn and other crops of the present year. With a view that these experiments may be thorough, we would recommend its use just before the first working of the crop, in the following manner: Mix 100 lbs. Guano, 1 bushel Plaster, 5 bushels of Ashes, and 5 of Mould, well together; then distribute this mixture over an acre of corn, taking care to so apportion it, that each hill of corn will receive as equal a part as possible. Mark the ground thus treated, and at corn gathering time, stake off an acre on either side of the guanoed land, then measure the product of each, and if we are not greatly deceived in the virtue of guano, plaster and ashes, it will be found, on trial, that the acre treated as we recommend will yield fully one-third more merchantable corn than the other two, or any other two acres of the same field.

THE REYBOLD FLOCK—Maj. Philip Reybold, of Delaware, so well known and highly appreciated in his character of flock-master and feeder of sheep weighing 147 lbs. the four quarters, cutting 5 inches thick of fat on the rib, and of unrivalled quality of mutton, but still wishing to ascertain whether it would be possible to add further weight to his already very superior flock, his son, Mr. Clayton Reybold, proceeded to England the last summer, as we have before noted, and selecting two Bucks of the *New Oxfordshire* breed, and eight Ewes of the purest Leicester blood from the best flocks, without regard to expense, returned in season to place the bucks with these ewes, and about 230 of the choicest ewes from the Reybold flock, the lambs from which cross are now dropping, and giving evidence that the experiment will prove eminently successful. Our engraving, by Mumford of Philadelphia, we are assured, does but common justice to the animal it so ably represents. Of rapid growth, and splendid proportions, weighing 320 lbs. after serving 130 ewes the past season, and with a fleece, in the estimation of judges, promising to weigh 20 lbs. at the time of shearing, he may truly be denominated 'a great sheep.'

Maj. Reybold has resigned his farm into the hands of his son, Mr. Clayton Reybold, whose intention it is, to confine himself mainly to the improvement of the long woolled class of sheep; and he flatters himself, that from his father's unrivalled flock of Leicester ewes, and those of his late importation, crossed with the *New Oxfordshire* breed, that is now taking precedence of other long woolled sheep in England, together with farther and occasional resources drawn from the best flocks in that country, he will be able to raise Bucks for sale or letting for the season, that shall be satisfactory to his friends, creditable to himself, and honorable to his country. He will be happy to exhibit his flock to gentlemen who are desirous of introducing this valuable and highly interesting class of long woolled sheep on their estates, and would be glad of their patronage and support in his undertaking.

DINNER TO MR. SKINNER—A complimentary dinner was given at New-Orleans on the 4th March, to J. S. Skinner, esq. the founder and former editor of the "American Farmer," and the present editor of the "Farmer's Library." This token of regard was intended as a mark of respect for his devotion to the agricultural interests of his country. Mr. Skinner made an interesting speech on the occasion, and was succeeded by the Hon. Baillie Peyton, Col. Wm. R. Johnson, the Napoleon of the turf, Hon. S. S. Prentiss, A. C. Bullitt, esq. and others.

HIGH PRICED TOBACCO—Messrs. Pike & Penn, of this city, recently sold 4 blds. of Tobacco at the following handsome prices, which are better, we believe than any that have been obtained for years; 1 bld. at \$40.55 per 100 lbs; 1 bld. at \$22.50 do.; 1 at \$18.50 do.; and 1 at \$12.50 do. It was raised by James

Kent, esq. of Anne Arundel, on old land on his Calvert county plantation. We hope Mr. Kent will furnish, for the gratification of his brother planters, an account of his system of culture and mode of curing, whereby he has been enabled to obtain such a cheering remuneration for his crop.

CHASE'S CARD SPINNER—We have received a copy of a pamphlet containing a description of a machine patented by Moses Chase, and owned by Geo. Law, esq. of this city, for spinning Wool, Silk, &c. around Cotton, Flax, Hemp, or other yarn, thus producing a yarn for the manufacture of linsey woolsey, stockings, capots, blanketing, carpeting, belting and other fabrics for domestic purposes, of superior strength, warmth and durability. The following paragraph from the description of the machine, will be sufficient to attract the attention of farmers and planters thereto:

"It is both simple and durable in its construction, being composed principally of iron, not liable to be affected by the sudden changes of the atmosphere, and in conjunction with the Cotton Spinning Jenny, now in extensive use on Southern Plantations for spinning Cotton into Yarn, and with a common loom, the Card Spinner will enable the Planter to be his own manufacturer; or by purchasing the coarsest kind of Cotton Yarn, where the planter has not the facility of spinning his cotton, he can, with wool of his own growing, and the attendance of two boys or grown hands, who, from age or other causes may be incapable of field labor, spin with two spindles, sufficient yarn to weave from 6 to 8 yards of yard wide cloth per day."

Our space does not permit us to notice as much in detail as we could desire, this valuable machine; we must therefore content ourselves with adding the remark made by the Hon. Dixon H. Lewis, Senator in Congress from Alabama, who, after witnessing its operation, and examining the fabrics produced, says:

"I should suppose such a machine could be introduced to great advantage in private families in the South, and can be operated easily by two very ordinary hands."

IMPROVEMENT IN THE BREED OF HORSES IN MARYLAND—We had intended to have noticed, before this, the introduction into our State, some months since, by our public spirited friend, Col. Capron, of Prince George's, of a superior Stallion, obtained from New York, for the improvement of our road stock—but amidst the multiplicity of other engagements, we had lost sight of it, until our attention was arrested by others nearer home.

The *Walden Messenger*, was purchased by Col. Capron, without regard to price, his directions to his agent being to obtain the best animal suitable for the improvement of the road stock of his county, thereby saving to it large sums which are annually expended abroad for horses suitable to the purposes for which the get of *Walden Messenger* are intended—a number of which are required for the extensive manufacturing establishment at Laurel, of which Col. Capron is the head, as well as for his large and highly improved farm adjacent thereto. *Walden Messenger* received the first premium at Goshen, N. Y.

Fair, against twenty competitors, as the best horse of any age; and also the diploma as the Fair of the American Institute, in N. York, in Oct last. He is now standing in Prince George's, and the characteristic liberality of the farmers and planters of that county will no doubt be evinced by a suitable support of the experiment which has thus been made by the owner O. W. M., as there is no doubt the best results will flow to them and their section of the State by the enterprize and public spirit of Col. Capron, in the introduction of so fine an animal for their use.

In a drive which we took a few days since to Govanstown, near this city, we had the opportunity of examining two very superior horses, belonging to R. Gilmer, jr. which are now filling an engagement for the season, in Baltimore county.

Tom Jackereve, one of them, is of the purest strain of the celebrated Tom breed; was the property of the late T. R. S. Boyce, esq. who considered him the finest horse, of his strain, ever introduced into this State—his color is a beautiful mahogany, his form well proportioned, with an eye almost as intelligent as that of a human being; his action is airy and unconstrained, and he has all the natural gaits—Notwithstanding all his spirit, as an evidence of which, in a long ride, the groom could not make him walk, he is remarkably gentle, a child 5 years old, the son of Mr. G. riding him all over the farm, and four of his children have been placed on his back at the same time with perfect safety—He has nearly every requisite for the production of a fine race of saddle and harness horses.

A number of gentlemen from the lower counties, who have seen and rode this horse, were anxious that he should make a season in their vicinity, but the proprietor, with a feeling of pride becoming a Baltimorean, preferred giving his friends and neighbors the preference, believing that amidst the improvement so rapidly spreading around us, in the superior cultivation of our lands, attention to this valuable animal, so all-important to the comfort and necessities of the human family, should not be lost sight of—and we earnestly hope, that his endeavors to improve the breed will be met in a corresponding spirit by the farmers and others of Baltimore—for certain we are, that had Mr. G. accepted the invitation tendered him from another county, so far as pecuniary considerations were involved, the most satisfactory results would have ensued.

The other horse, the *Argonaut Chief*, is a full bred Canadian—Mr. Gilmer heard of his being in Jefferson co. Va. and at considerable trouble and expense, has secured his services for the season. The best judges pronounce him the very finest Canadian we have ever had in this vicinity, and for the breed, that he is of the most finished form. He was sent to N. Orleans to take part in a match for \$5000 aside, and received forfeit; he has performed his mile in 2m. 20s. Those wishing to secure a cross from this celebrated breed, will not be likely to secure so favorable an opportunity as the present affords.

RYE—We received about the 10th of April, a bunch of Rye, raised on a farm belonging to Cheyney Hoskyns, esq. of Harford—It was eighteen inches high; was found in a wheat field which had been very poor land, but had been guanoed last fall; it was certainly of a great growth at that season of the year.

CLAY LAND—Permanent grass should be kept in this kind of land as much as possible.

TREATISE ON MILCH COWS.

We have received from the publishers of Skinner's "Farmer's Library," a copy of the treatise on Milch Cows, translated for that journal by Mr. Trist, late Consul to Havana, from the French of M. Guenon—and now published in pamphlet form.

The edition before us is prefaced, by "Remarks and Observations on the Cow and the Dairy," by the editor of the "Library," in which he gives a description of the different breeds of cattle, and the general management of cows, together with the proper treatment for various diseases to which cows are liable.

M. Guenon says his attention was drawn to the subject in hand, by his researches for the external marks indicative of their good or bad qualities, having come to the conclusion that they ought to exist as well in the animal as in the vegetable kingdom—and having satisfied himself that they did so exist, he applied himself to the classification thereof, which from the circumstance of his being an uneducated man, was found to be attendant with considerable difficulties, which, says M. Guenon, might have disheartened any other person, but did not discourage him. In 1828 he addressed a request to the Academy of Bordeaux to have the system he had created examined and reported upon; but the academy without adopting his conclusions, did however make honorable mention of him. No further steps were taken in the matter until 1837, when it was determined by the Agricultural Society of Bordeaux to test the reality of the system, and a committee was appointed to make experiments for the purpose, which left no doubt in their minds as to the certainty thereof:

"Every cow (says their report) subjected to examination, was separated from the rest. What M. G. had to say in regard to her was taken down in writing by one of the Committee; and immediately after, the proprietor, who had kept at a distance, was interrogated, and such questions put to him as would tend to confirm or disprove the judgment pronounced by M. Guenon. In this way we have examined, in the most careful manner—note being taken of every fact and every observation made by any one present—upward of sixty Cows and Heifers; and we are bound to declare that every statement made by M. Guenon with respect to each of them, whether it regarded the quantity of milk, or the time during which the cow continued to give milk after being with calf, or, finally, the quality of the milk as being more or less creamy or serous, was confirmed, and its accuracy fully established. The only discrepancies which occurred were some slight differences in regard to the quantity of milk; but these, as we afterward fully satisfied ourselves, were caused entirely by the food of the animal being more or less abundant.

"The results of this first test seemed conclusive—but they acquired new force from those of a second trial, in which the method was subjected to another test, thro' M. Guenon and his brother. Your Committee, availing themselves of the presence of the latter, caused the same cows to be examined by the two brothers, but separately; so that, after a cow had been inspected, and her qualities, as indicated by the signs in question, had been pronounced upon by one of the brothers, he was made to withdraw;

then the other brother, who had kept aloof, was called up, and desired to state the qualities of the same animal. This mode of proceeding could not fail to give rise to differences—to contradictions, even—between the judgments of the two brothers, unless their method was a positive and sure one. Well! gentlemen we must say it—the last test was absolutely decisive: not only did the various judgments of the two brothers accord perfectly together, but they were in perfect accordance, also, with all that was said by the proprietors in regard to the qualities, good and bad, of every animal subjected to this examination."

A gold medal was awarded M. Guenon, by the Society; he was elected a member; fifty copies of his work subscribed for, and a thousand copies of the report printed for the use of the agricultural societies of France.

Experiments similar to the above, and with results equally decisive in favor of the system, were made by the Agricultural Society of Aurillac, and a gold medal awarded to M. Guenon; he was appointed a corresponding member, and copies of his work subscribed for, to distribute among the sub-societies of the department; the report from this society was also ordered to be transmitted to the prefects and agricultural societies of France.

Backed by such testimonials, the author presents the results of his meditations and toilsome studies to the world:

"Every one (he says) will be able, with the aid of the lithographic drawings attached to the work, readily to recognize the distinctive marks of the animal examined by him. These marks are visible upon the posterior parts of every cow, in the space embraced between the udder and the vulva. They consist of a kind of escutcheons of various shapes and sizes, formed by the hair growing in different directions, and bounded by lines where these different growths of hair meet. The varieties of these escutcheons mark the different classes and orders of cows. It is upon these signs that every one may rest his judgment, by attending to the remarks contained in the body of the work upon the different kinds of cows. They are what every body has seen, or been able to see; but what no one has attended to."

"All things are strange until they are found out!" says Skinner, and strange indeed is the discovery of M. Guenon; yet the array of proof of the correctness of his system, has shaken the opinion of those who were skeptical upon the subject.

☞ This work is on sale at our bookstore, for 37c.

THE FARMER'S DICTIONARY, a vocabulary of the technical terms recently introduced into Agriculture and Horticulture from various sciences, and also a compendium of Practical Farming: the latter chiefly from the works of the Rev. W. L. Rham, Loudon, Low, and Youatt, and the most eminent American authors. Edited by D. P. Gardner, M. D., honorary member of several agricultural societies: Harper & Brothers, publishers.

We have received from the publishers a copy of this work, and can with confidence speak of it as being of great value to the agriculturist. It contains 876 pages, and about 400 wood cuts, for \$1.75, well bound. The title fully indicates its character, and

we consider it one of the very best works which has of late appeared; and Dr. Gardner, the editor, is entitled to the thanks, as his book is to the patronage of the farmers and gardeners of the U. S. The editor has added an appendix to the main body of the work, giving the composition of the ashes of most of the crops raised in the United States, which hesays has been done in consideration of the existing desire for information on the topic, and the impression that the most suitable manures for plants are discoverable by a study of their ashes; the knowledge thus obtained obviates the necessity and expense of applying compost containing various fertilizers, when we find the crop requires perhaps but a single one.

☞ The work is for sale at our bookstore.

LARDNER'S LECTURES—We have received from the publishers, Greeley & McElrath, N. York, Part 13 of the popular Lectures on Science and Art, delivered by Dr. Lardner, in the principal cities of the U. S. This number is taken up with the 2d, 3d and 4th Lectures on the Steam-Engine, and in order to enable the publishers to complete the series in 14 numbers, they have been obliged to add 32 pages of matter to the present, and the same will be requisite for the 14th and last part; this is done without any additional charge to the purchasers. The last part will appear in May, when the work will be ready for binding. It is a work that must find its way into the hands of every one who has a taste for the arts and sciences, or whose avocation tends thereto.

All or any of the parts can be obtained at our store, at 25 cents each.

AMERICAN QUARTERLY JOURNAL OF AGRICULTURE AND SCIENCE—We have received thro' our friend, C. N. Bement, esq. the first No. of the 3d vol. of this excellent journal, conducted by Dr. E. Emmons and A. Osborn, esq. at Albany.

The contents are very varied, and are of that order which might be expected to fill the pages of a work, the conductors of which are so eminent for their talents and research. A steel engraved portrait of His Ex. Gov. Wright, of N. Y. accompanies this number; also a plat of the Lake Superior Mining Company's locations.

The price of the Journal has been reduced to \$2 per ann., notwithstanding which it has been much improved in its appearance. ☞ Subscriptions received at our bookstore.

LARGE CROPS—SUBSOIL PLOUGHING.—Mr. Chas. F. Crossman, an extensive grower of Garden Seeds and vegetables at Rochester, N. Y. writes as follows:

"My crops of roots were very good the past season. I raised 410 bushels of carrots on $\frac{1}{4}$ of an acre; 550 bushels of potatoes on 2 acres; about 600 bushels of onions on 1 acre; and over 100 bushels of beets (several kinds) on $\frac{3}{4}$ of an acre. My mode of preparing ground for long roots is, to plow with a double team as deep as possible, and subsoil each furrow—adding plenty of compost manure."

"The life of fame is action understood,
That action virtuous, great and good."

SUMMER MANAGEMENT OF SHEEP.

We continue our abstract from Morrell's "*American Shepherd*"

Soil.—The soil most suitable for sheep is a dry one. It should have in its composition a due proportion of clay in order that security be afforded against a burnt up pasturage during the heats of summer, a thing that cannot be provided against in porous sands.

Herbage.—Pastures which afford a continuous supply of luxuriant grasses though they operate to increase the bulk of the fleeces, decrease the fineness. Therefore, those pastures which afford a regular and moderate herbage are the best for sheep where wool is the object of sheep culture. Sheep which fatten quickly, though they increase in carcase, and quantity of wool, never fail to lose in the quality of the fleece.

High poor lands produce better wool than rich, low lands, and as the sheep delights in a variety of herbage, where the grounds have to be set in grass, seeds of various kinds ought to be sown, care being taken to select those which are not of rank growth. The pastures of the sheep should be changed at least once a week. Occasionally, if turned into the woodlands to browse on forest shoots it will be found conducive to the health of the sheep. Small enclosures, in proportion to the size of the flock, is found, by the experience of European shepherds to be best. The following list of grasses are recommended for sheep pastures—Sweet scented Vernal—Meadow Fox-tail—Short blue meadow—Kentucky blue grass—Sheep's Fescue—Cock's Foot, or Orchard—Welch Fescue—Narrow leaved meadow—Hard Fescue—Meadow Fescue—Perennial Rye grass—Fertile meadow, Timothy and red and white Clover.

Shade Trees.—Where pastures are not provided with wood-lands for the sheep to retire to in the heat of the day, the deficiency should be supplied by shade trees.

Water.—Every pasture should be supplied with water, and particularly necessary is it that it should be where there are suckling ewes.

Weaning Lambs.—The period varies. The usual time allotted for the lambs to suckle is 4 months. Lambs intended for mutton should be continued a few weeks longer—those intended for wool should be weaned about the 25th of August—the lambs should be removed as far as possible from their mothers, and to a better pasture to prevent their falling off in flesh, not, however, too luxuriant, as in the latter case disease would follow from repletion. Prior to removal the lambs should be trained to eat salt, a habit they easily acquire by the side and under the example of their mothers. Indeed, every pasture should be provided with salt, and in order to prevent the evil consequences of the Fly deposit, a trough with a mixture of tar and salt should be kept under cover there, accessible to the sheep at all times from the first of July till the first of September, which mixture should be renewed twice a month.

While it is necessary to remove the lambs to a better pasture it is recommended that the ewes be placed in a poorer one, to prevent the garget from the distention of their udders. To prevent this they should be watched, and whenever their udders are swollen they must be milked for a few days, and fed upon dry hay. After the lapse of a week or two, the ewes should be placed on such pasture as will speedily put them in good condition, as it is important that they should thus enter upon the winter feeding, and the same remark holds good with respect to the lambs.

Ear-marking.—This practice is recommended for the lambs, in order that, should they stray away, they may be recognised and reclaimed.

Wheat Stubble.—Sheep should not be put upon such pastures, as from the inflammatory nature of new wheat, if eaten freely, it is exceedingly dangerous. Before sheep are turned into such pastures, they should be preceded by swine, and never without having a plentiful supply of salt.

Over Stocking.—No sheep raiser should over-stock his pastures. The average number of acres for the support of 100 sheep is 35.

Fall Grazing.—Sheep which are kept in pastures after frost should have daily allowances of hay or straw, as grass after repeated freezings and thawings loses much of its nutritive virtues, and, therefore, fails to keep up that good condition in the sheep which it is so desirable to be in upon being brought into winter quarters.

Sorting, preparatory to Winter.—About the 10th of November, the author assembles his lambs and classifies them according to size and condition, and herds them in flocks of 100 each. This being in western New York, the time, farther South, and West must be regulated by the sheep grower and made to conform to the exigencies of his peculiar latitude.

The old sheep are divided—the wethers and ewes never being permitted to herd or run together after the first shearing.

The least fleshy are selected, and receive increased attention.

Wethers intended to be turned off the ensuing season get a little grain daily.

The breeding ewes should be sorted with great care.

A PRESENT—We have received from W. W. W. BOWIE, esq. of Eglington, Prince George's co. Md. a barrel of his "Bowie Seedling" Potatoes, for which he will please accept our thanks. Mr. B. writes us that he raised them by careful culture and selection from the seed or apple as it is called; and as yet they are not found subject to the "rot." They are decidedly the largest, finest and most perfect lot of potatoes we have seen, and their edible qualities are not inferior to those of the Mercer.

One of Benson's Water Rams, noticed in our last, will be in operation in a few days in Baltimore.

MARYLAND FARMERS' CLUB.

SATURDAY, APRIL 11, 1846.

The Club met agreeably to public notice, JOHN GLENN, esq. President, in the chair.

The first business in order being the election of new members, the names of the following gentlemen were presented, and they were unanimously elected, viz: Dr. Walter P. Allender and R. Gilmor, jr. of Balt. co.; J. Murray Lloyd, of Talbot; A. G. Ege, Jno. K. Longwell, Jno. B. Boyle, and Sterling Galt, of Carroll co.; W. Reynolds of Balt. city; and Dr. A. Thomas, of Howard District.

A letter was received from Z. W. Potter, esq. on behalf of his father, Gen. Potter, stating that age and it consequent infirmities, alone prevented him from assuming the duties of Vice President—Z. W. Potter, esq. was then elected V. P. for Caroline county.

Communications were received from Dr. Brewer, of Montgomery, Mr. Goldsborough of Dorchester, and Mr. Calvert of Prince George's, accepting the appointment as Vice Presidents of the Club for their respective counties.

Messrs. Price of Balt. co., Gilpin of Cecil, and Hoskyns of Harford, were present, and accepted the appointment for their respective counties.

Correspondence of an interesting character has been held with Dr. Brewer, Pres't. of the Agricultural Society of Poolsville, Montgomery county, stating their willingness to become an auxiliary to the Md. F. Club, and the Cor. Secretary, who urged immediate action in the premises.

The following gentlemen were proposed and elected as Honorary Members, viz: Prof. Liebig, of Giessen, Germany; Profs. Playfair and Johnston, of England; Hon. Ed. Burke and Hon. H. L. Ellsworth, present and late Commissioners of Patents; Hon. J. S. Skinner, Prof. Teschemacher, of Boston; Dr. Muse, of Maryland; Whitemarsh B. Seabrook, Pres. South Carolina State Agr. Soc.; Jas. Gowen of Philadelphia; C. N. Bement, of Albany; Prof. S. L. Dana, of Lowell, Mass.; Dr. E. Holmes of Maine; and Rev. Hy. Colman, of Massachusetts.

As Corresponding Members, Wm. H. Barrett, esq. Cheltenham, England; Edward Bowly, esq. of Sidington House, Cirencester, England.

The Cor. Secretary presented copies of sundry works on agriculture, as a donation for the Society's library; and a copy of a Prize Essay on 1 horse Carriage, by Ed. Bowly, esq. of England, to the Royal Agricultural Society.

A specimen of Tobacco, raised by Dr. Fenwick of Anne Arundel, was presented for examination; and much admired for its silky texture, and delightful flavor; it was the product of seed from California, which Dr. F. obtained through the editor of the Farmer, from the Patent Office.

Corn Culture—The business before the Club having been finished, the regular subject for discussion being the "Culture of Indian Corn," became next in order; when the views of several of the gentlemen present, from different parts of the State, being entertained, were found to be almost unanimous on one point, in the culture of this important staple production; and that is, that the ground should be deeply ploughed, finely pulverized, where clayey, and thoroughly cleaned and worked, previous to the planting, thus rendering the after culture more speedy and less laborious.

There was also a very general concurrence in the doctrine, that where the ground is of a friable consistency,—the one most suitable to this crop—the

plough should not, under ordinary circumstances, touch the ground after the seed is dropped.

The general principle, that the more stalks on an acre, to a certain extent, the greater the yield, was also sustained—Planting in step drills, four and a half to five feet apart by two in the rows, was equally well maintained, as the best general mode, where the soil, exposure and season were favorable.

Where the ground is very low, as on the estate of J. Murray Lloyd, esq. that gentleman remarked, it was customary to plough in narrow lands; farmers, however, will generally admit, that where the geological formation of the surface does not prevent, level or broad ploughing has universally obtained advantage.

Mr. A. Shriver, V. P. of Carroll, being called upon by the president, said, that his farm is rolling, and the land limestone and blue slate; he plows in the fall very deep, say 10 to 12 inches, and harrows in the spring as early as the ground will admit; applies lime at the rate of 50 bushels, and manure to the amount of 12 or 15 five-horse wagon loads per acre; plows this in lightly, deep enough though to cover the manure well; after which it is well harrowed twice each way, so that the ground receives a thorough previous culture, which is of much importance, as it lessens by one-half the labor required for after cultivation. Mr. S. plants about the 1st May, listing but one way, 5 feet distant; the corn is dropped by stepping a short step of say 24 inches; leaves three, sometimes four stalks in each hill—The after cultivation is managed entirely with the cultivator; does not plow on any occasion after the corn is planted; uses the hoe twice, chipping up or covering every spear of grass or weeds. Agreeably to calculation, Mr. S. has found that corn planted 5 feet by 2, and 3½ ears to each hill, will yield 18 barrels, or 90 bushels of corn per acre; he has raised 16, 17, and 20 barrels per acre the last three years—he always plants for 18 barrels, the yield being more or less according to the season.

Mr. S. was asked if he used Dysart's universal Cultivator? he did not, but it was much used in his vicinity.

The large quantity of manure used by Mr. Shriver, suggested the enquiry if he used the Bommer method of making it. He had not heretofore, but intends to do so, as he approved of it; many farmers of Carroll used it with excellent success; Mr. S's supply was from the usual facilities of the farm.

The kind of seed used, he said, was formerly the white flint, but he found it did not fill so well; has since planted a large eared yellow corn, grain ¾ in. which has 35 rows on an ear; it stands thick planting better than the white flint, and sells better; the latter, he found did not sell so well. Mr. S. generally puts his corn in two years in succession, and after the second crop, is then able to get his land in condition for wheat—thinks if he had used the seed he now plants, when he raised his crop of 99½ bushels to the acre, he would have considerably increased the amount.

In reply to the question if his yellow corn was heavier than the white, Mr. S. said it was, it weighed 57 lbs.; one end of the ear is nearly as large as the other.

Mr. J. M. Lloyd stated that Col. N. Goldsborough and others of his county, as well as himself, had, by the system they now adopt, been very successful, 19½ to 20 bbls. to the acre being raised by them. He manured on the surface, which he thinks important when the ground is flushed; plants 2 feet by 4, with 2 stalks in the hill where the land is strong, and but one where it is light.

Mr. J. C. Walsh of Harford, Mr. Gilpin, of Cecil, Dr. Price of Balt. and others, stated the system adopted in their respective neighborhoods in the cultivation of this crop. Mr. Walsh said in his section of Harford, the flat cultivation of corn was generally preferred, that is, the use of the cultivator in the working of it, instead of the plough, leaving the earth level around the plant in place of throwing a hill to it.

The following paper was received by the President, from the Hon. Mr. Pearce, Senator from this state in Congress, relative to a cure of lockjaw in a Horse by galvanism:

JOHN GLENN, Esq.

President Maryland Farmers' Club:

My dear Sir: In September last, one of my carriage horses trod upon a cart nail, which entered his foot between the frog and sole, and tho' he was carefully treated, the symptoms of lockjaw appeared in 18 days afterwards. I was absent from home until the second day after the appearance of tetanus, and no remedies were used till the third day, when I followed the directions given in Skinner's Youtt: bleeding copiously and administering the aloes ball. But the horse rapidly grew worse; he could scarcely walk. The fatty matter behind the eye and the haw (or hooks, as popularly called) projected so as almost to cover the eye; his nostrils were distended and inflamed, his breathing difficult and distressed; his tail stiff and rigid. He stood with his legs wide apart, unable to bend his neck, the tendons and muscles of which were as inflexible as iron, and he could eat nothing but a warm bran mash, and that sparingly and with difficulty. His flesh declined with great rapidity. While he was in this condition it was suggested to me to try galvanism; accordingly I procured from the College at Chestertown, a voltaic battery, the application of which Professor Green of the College was kind enough to direct and superintend. The apparatus consisted of small copper and zinc cylinders, with what I believe is the usual heliac arrangement. By introducing soft iron wires into the inner helix, the shock could be increased to almost any degree of intensity. In applying the remedy considerable surface of contact was obtained by wrapping the holes of the current with pieces of cloth well wet in a solution of salt and water. The current was first passed through the head by placing one electrode, (the negative) at the articulum of the lower jaw, while the positive was slowly moved up and down the head. The application was varied by placing one of the electrodes at the articulations of the limbs, and at different points along the spine, &c. A current of low intensity with only six wires in the helix was as much as the horse would bear.

A much greater and very striking effect was observed when the electrodes were so placed as to cause a current to move up the spine—a fact I think worth further observation and enquiry. During this application the tail and neck lost their rigidity, the horse switching the one and throwing up the other as if not diseased at all. He moved his limbs rapidly, and kicked with great activity, while every muscle in his body, particularly about the chest and belly, quivered at the shock. These applications were repeated five or six times with intervals of a day or two, always beginning with slight shocks and gradually increasing them.

My neighbor, Mr. Edw. Ringgold, insisted upon my also employing his remedy, which he informed me he had used with entire success in five or six instances. Accordingly my horse was carried to the riv-

er every day, plunged into deep water, and made to swim about three or four minutes at a time.

The result was, that he improved slowly but gradually, was turned to grass in a fortnight, put to harness in a month, and is now in as fine condition and moves with as much spirit and activity as ever.

These are the facts. If you think them worth communicating to the Farmers' Club they are at your service.

Very truly your friend and servt.

J. A. PEARCE.

The President proposed that at the next meeting, the Club should take into consideration the propriety of holding an AGRICULTURAL FAIR, and the most suitable time therefore; which was adopted.

It is also proposed that the subject of the APPLICATION OF MANURES TO THE CORN CROP, involving as it necessarily does, so vast a field, be the order of the day at the next meeting.

In the absence of any experimental recommendations, *ex cathedra*, the Corresponding Secretary respectfully suggests the following experiments, in the culture of Indian Corn, to members of the Maryland Farmers' Club, throughout the State, with the request that they report the results when the crop is saved:

1. Where a sod has been broken up *last Fall*, omit to cross plough this spring a slip of the average quality of the ground.
2. Or, where it is *not* customary to cross plough such ground, let it be done on a small slip—the seed, manure and culture to be, in all respects, like the rest of the field.
3. Where a sod has been turned down, last fall, to select a similar piece of sod ground, in all respects, break it up this spring, and cultivate alike afterward.
4. Where a piece of stubble or clean ground is to be planted, let here and there a row be left, after harrowing down, remain without barring—also here and there, when barred, return the soil at once to the corn by a light back furrow. Mark these rows, Nos. 1 and 2, and report.
5. Let a small portion of a field of stubble, clean or rotted sod land, where it is designed to plant step drills, be thrown into lists five feet apart, and intersected at right angles, by shallow furrows $2\frac{1}{2}$ feet apart; cross cultivate, but not plow: also a portion without lists, other distances, &c. the same.
6. Let a part of a field which is to be manured for corn, no matter with what kind of manure, be manured broadcast, if it is to be generally in the hills; or if to be broadcast, manure a small portion in the hills alone.

ON THE PRACTICAL USE OF GUANO FOR SPRING CROPS OF GRAIN AND ROOTS.

The season for sowing spring crops of grain, seeds, and roots, having arrived, simple directions for the application of guano will be found useful. In giving directions for the application of farm-yard manure, it would be wholly unnecessary to enter into a learned chemical analysis of its component parts, or to use any arguments to prove that it is most effective in affording the requisite nourishment to grain, seeds, roots, grasses, and, in fact, to all agricultural crops. It would only be requisite to advert to the various strengths of the different kinds of farm-yard manure, inasmuch as a difference is found in the effect of that article where animals are fed upon ordinary food, and upon common cake—the latter

being far superior. So in reference to guano, its excellent qualities have been sufficiently proved by analysis, and its effects upon crops have been tried and proved by the best of tests—experience. It may now be regarded as an established manure of standard excellence, containing the essence of the best farmyard manure confined in a small compass. The advantage of smallness of bulk, both as regards cost of conveyance and application to the soil, is a matter of most serious importance when compared with the great bulk of ordinary manure, especially in those cases where the land lies at a distance from the homestead and is of a hilly character. In purchasing Guano, there are two points which demand most serious attention. To purchase the best sort, and to deal only with those persons upon whose honor and integrity implicit reliance can be placed. It has been abundantly proved that the Peruvian and Bolivian guano is by far the strongest and best. Other guano may approximate, but it is just the difference between the manure of caked beasts and those of an inferior description of food. Then, again, in purchasing the article, even if the best be sought and paid for, unless the integrity of the seller can be relied upon, there is no article, not even bone-dust, which can be more easily adulterated without detection except by the process of analysis, and which cannot be gone into after the article is brought home and put where it is going to be used in the field. It may be well here to notice that the Messrs. Gibbs, of London, and Myers & Co., of Liverpool, are the sole consignees of the South American guano, they being agents for the contractors with the government; that none can come to this country except through them; and thus, if the article is obtained from them, or from agents directly connected with them, the genuineness of the article may be relied upon. When purchased from dealers, only those of unimpeached character ought to be resorted to.

It is scarcely necessary that we should cite here any cases to prove the beneficial effects of the application of South American guano to barley, oats, potatoes, turnips, grass seeds, and natural grass; but we shall nevertheless, quote a few cases at the conclusion of this article.

In the application of guano, it should be especially noted that it should be used when the ground is moist, or during or on the immediate approach of rain. Moisture is essential, not only to induce its beneficial effect, but to prevent injury to the plants when applied as a top-dressing. Care should be taken that it be not applied in its original state directly to the grain, seed, or plant. The failure of the guano, as represented in some few cases, can be traced to error in those points.

1. Procure genuine Peruvian or Bolivian guano from the importer, if possible, or if not, from respectable parties who buy from them.

2. If there are any lumps in the guano, pass them through a sieve, and repeat the same until they all disappear. Never mix slack or unslack'd lime with the guano. In case of mixing bones and guano together, for a top-dressing, it should be done only two days before being applied to the earth. In preparing different soils, &c., place always a layer of the ashes, earth, or otherwise most appropriate for the guano intended to be applied, and one of guano alternately. When done, turn the whole carefully over together; and after it is properly mixed with a shovel, pass the same through a garden riddle, and exclude the whole from the atmospheric air, or damp situations, until taken away for use.

3. It is advantageous to be applied immediately before or after rain. This is to be effected by strictly attending to the weather glass.

4. *Preparation for clay and strong soil.*—Mix wood charcoal, or coal ashes, pass through a sieve, peat sod, or turf ashes, if it can be procured, in preference, and sawdust, if the former cannot be readily obtained, the day before taking up for use, with as much farmyard drainings sprinkled over the whole, and after being regularly mixed together, so that they will pass readily through a garden riddle, preparatory to their immediate application to the earth, and sufficiently dry to be used with the drill, if required.

5. *Preparation for gravel, sand, or any light soils.*—Strong clay or marl (not calcined), earth from ditch bottoms, decomposed soils, or good black garden earth, and if not sufficiently dry may be exposed to the sun, or open air, sufficient time to pass through the finest mesh sieve they will admit of.

6. *The April and May top-dressings, for grazing land.*—Clay and strong soils, per statute acre, three cwt. of Peruvian or Bolivian guano, with three times its bulk of mixture named in rule 4.

7. *For meadow land, gravel, sand, or any light soils.*—Two cwt. of guano and two cwt. of gypsum, or two cwt. guano, with three times its bulk of rule 5.

Observe, when four cwt. of guano, &c., is applied to the acre, it will be better to divide that quantity and introduce two cwt. of guano, &c., before the land is laid down for meadow, and two cwt. of guano, &c., as early as convenient after the grass or hay is taken from the field. Should, in any instance, a smaller or larger quantity of guano be preferred, as an experiment, in that case quantities of each, proportionately, according to the nature of the soils, and after applied to the ground, in all top-dressings to be immediately well rolled and brushed.

8. *Moor, peaty, springy, or mossy grounds.*—Three cwt. of guano, with three times its bulk of mixture named in rule 4.

N. B.—All artificial grasses and clovers the same as meadow land; nature of the soil to be considered.

Although the increase of grass will be very considerable indeed, the aftermath and hay taken out of the field, it is not of a coarse quality, neither does it injure the crops for the following year; but it is recommended, the spring following, to apply two cwt. of guano, and three cwt. of soil, ashes, or what is properly adapted for the land, in quantity, as it will increase the crop and bring it forward considerably earlier, and the grass and hay will be of a superior quality. But if no additional top-dressings are applied in spring, or after the field is cleared of grass or hay for three years, the crops will be stronger than those matured with farm-yard dung—for manure is the main spring in all farming and garden operations. We may drain well, subsoil, or plough deep; but without a sufficient quantity of manure, land cannot be more profitably worked than a horse can that is only half-fed.

9. *Top-dressing for Wheat, Barley, and Oats.*—For April, May, and beginning of June, for all soils deficient in plants, or in a weakly state, the following application will prevent the wire-room destroying the roots, and, in a great many instances, has destroyed the wire-worm altogether, and prevented mildew.

10. *For gravel, sand, and light soils.*—Two cwt. of guano, and two cwt. of gypsum, or two cwt. of guano with three times the bulk of mixture named in rule 5.

For clay and strong land.—Two cwt. of guano, with three times the bulk of mixture named in rule 4. The above, if applied to crops of corn in a healthy state, will give additional increase, render the quality finer, the bulk of straw greater, and earlier at maturity, than farm-yard manure, with less labor and half the expense.

11. **Potatoes (for land generally).**—Three cwt. of guano, with three times its bulk in ashes or earth, with ten tons, or half the usual quantity of farm yard manure, to be strewed at the bottom of the furrows, by hand, before the sets are planted, will only increase the crop one-third in quantity, but will be earlier, and render the quality superior.

It must be particularly observed, in drilling guano, or ploughing it in after being sown broadcast, previous to having been turned over, the depth of the furrows should be calculated according to the nature of the soils. If cold, nearer the surface than gravel, or light soils; and to those farmers who have experienced the increase by the introduction of guano, it is advisable, to show the marked alternation, to leave a quarter of an acre of each in its original state, and to notice the difference in produce and quality, also that of farm-yard manure, if used in the same field, as an experiment.

12. **For Turnips and mangel-wurzel.**—The machines used for drilling the manure and seed at the same time may be adopted, providing five times the mixture with the guano, laid down in the rules of this treatise, be strictly attended to, by which means the guano compost is deposited so much deeper, and so much in advance of the seed, as to allow a portion of the soil to intervene between the seed and manure below it.

It is highly important for turnips and rape not to let the seed come in contact with the guano direct, as it will prevent the seed from germinating.

The result of all the experiments with manures is decidedly in favor of guano as a manure for growing turnips. So very apparent was its superiority in this respect in most of the fields, that we had no difficulty in pointing out the furrows in which it had been used. The general idea of its value in the commencement of the season, when it was applied, seems to have been that 1 cwt. of guano was equal to 5 yards of farm-yard manure, or 6 bushels of bones; and it is our impression, from the result of the experiments which it has been our privilege to observe, that its value as a manure has not been over estimated.

1. The guano should never come into immediate contact with the seed; it should be mixed with ashes, or earth, and deposited below the seed, or lightly incorporated with the soil before sowing.

2. It appears to be more useful broadcast, than sown by a drill.

3. It appears most useful in a wet season, or during or immediately preceding rain.

4. It seems more adapted for strong lands than light.

5. It is peculiarly calculated to promote the growth of plants in their early stages, and consequently is a valuable application for turnips, in conjunction with other matters.

6. It appears to answer well for green crops, which arrive at early maturity, when used alone.

7. In ordinary crops it should be combined with other less rapidly decomposing manures.

8. It appears to be beneficial to all cultivated crops.—*British Farmer's Magazine.*

AGRICULTURAL IMPLEMENTS.

To the Editor of the American Farmer :

Your valuable paper is, I believe, extensively circulated in the Southern States as well as at the North, and is therefore a proper medium for a few words I wish to address to agriculturists at the south, and to the manufacturers of agricultural implements at the North.

We of the South are inclined to look to the North for various implements in the line of the manufacturer pertaining to agriculture; and it must be admitted, we look to a most prolific source, for almost every day witnesses the announcement of some new and wonder working machine, or an essential modification of some old implement pertaining to our important craft. To-day we are presented with a new plow, contrived generally to have the important sobriquet of "Premium" attached to it; which works so easily as almost to dispense with a "team," and with a draft so perfectly Centre, as scarcely to require a driver, while its pulverization of the soil is so perfect as to render spade labor useless. The next day we have a *sub-soil* so mole-like, so imitatively adapted to all the purposes of subsoiling, that nothing can equal it. Then we have *Corn Crushers, Corn Shellers, Drilling and Fanning Machines, cum multis aliis*, all so ushered and puffed before the country as to keep the mind and the purse of the enterprising, though simple and uninitiated Southern farmer, on the constant reach to acquire these new "patent" modes of making his bread out of mother earth, without the laborious method, "by the sweat of the brow."

Now, sir, many of these new inventions so winningly set forth, are doubtless preferable to others they strive to rival, and better I am sure than those of the "old dispensation" that they have supplanted. But a little sore experience has taught me, and this fact I wish to communicate to my southern countrymen, that there are other things that are sometimes unduly puffed besides *patent medicines*.

But, sir, my object is not to detract from any valuable improvement in agricultural implements, and such improvements have been numerous and important within the last few years—but to remark for the common benefit of the purchasers of such articles, (who buy without sight,) and the manufacturers of these implements, that the prices charged for them is ordinarily exorbitant in the extreme, while the materials of which they are made are sometimes defective, and the instrument generally too light and unsubstantial for profitable use.

I might illustrate this by reference to many articles manufactured at various places for southern use, but it is invidious to particularize.

The effect of these exorbitant charges is, and the manufacturers ought to know it, to limit exceedingly the sale of their commodities; while it is absolutely unjust towards their confiding customers of the south, who, without having an opportunity of inspecting their articles, order them, relying upon their being adapted to the purpose for which they are recommended, and that they will be furnished at fair prices.

I know not indeed whether this extravagant system of charging is most injurious to the manufacturer, by limiting his sales, or to the agriculturist, by preventing him from getting articles best adapted to his purposes.

A leading practical effect of this error of the manufacturers, if indeed it ought not to receive a harsher

epithet, is, that not more than one farmer in any neighborhood is likely to order implements from the North; displeased often with the unsubstantial character of the instrument, and still more with the price at which he has been charged for it, the farmer is apt to speak of these things to his inquiring neighbors, and thus a local warning is given conclusive against other orders.

If the manufacturers and venders of farming implements would serve the best interest of themselves, or the country, they must make their work more substantial, and abate something of their present high profits.

A VIRGINIA FARMER.

HORTICULTURAL.

Having given in preceding pages, our monthly memoranda for the labors of the Farm, with the permission of the reader we will take a peep into that place which above all others should be dear in the affections of every good husband, as it is the spot cherished next to the domestic hearth by every wife who loves her husband, and certain are we, that that wife lives not, who has a husband worthy of being loved—who has one who has not warred against her peace in mere wantonness—but loves him with all the doating fondness of a pure and confiding heart. Having spoken thus we need not tell you that we mean

THE GARDEN.

Cabbages.—It is full time to sow all kinds of cabbage seed with the view of raising plants for your fall and winter crops, therefore prepare a bed on your border by manuring it well, digging it deep and raking it well: then sow the seed, and after raking it in finish the work by patting the bed with the back of the spade, so as to press the earth around the seed and thus promote its germination.

Cabbage plants. Your cabbage plants intended to grow heads for early use must now be set out. Should it be the case that you have not been provident enough to secure yourself a supply, go at once and buy some and plant them out.

Peas.—This is a good time to plant a bed of peas to come into use when the early planted ones are giving out—with a little attention to successive planting will secure a continuous supply.

Beans.—All kind of beans may now be sown, and while you are putting in other sorts do not forget to put in a small bed of the Lima.

Melons of all kinds should be planted at the beginning of this month, but recollect that no two kinds should be planted near each other.

Beets.—Prepare a bed at once for beets. Give to it well rotted manure, dig it in and rake it finely then make your drills and drop your seed. Before planting soak the seed a few hours in warm water.

Parsnips and Carrots.—It is time to get in the seeds of these roots—and recollect that no garden should be without them.

Early Turnips.—If you have not already done so prepare a bed and sow onion seed.

Spinach, Radishes, Lettuce, Small Salad.—Seeds of all this description of vegetables should be sown as early in this month as possible.

Celery.—If you have a bed of plants ready set them out as soon as you have a good rain,—and in the mean time sow a small border bed so as to have plants to set out for late celery.

Asparagus.—See that your Asparagus beds are kept clear of weeds. If you have not done so already strew salt over them, as this vegetable delights in having its food well salted.

Red Peppers.—Sow some seed of this vegetable, do it as early this month as possible.

Tomatoes.—If your plants are ready for transplanting set them out immediately. If you have no plants provided, sow the seed in a good rich border, in order that your family may not be without this excellent and healthful vegetable.

Strawberries.—If the weather should prove to be dry when your strawberries are in bloom, water the beds.

Egg Plants and Okra.—Plants of these vegetables must be set out without delay.

Nasturtiums.—Sow your nasturtium seed the first week of this month, and thus secure a supply of this excellent vegetable.

Pot and Medical Herbs of all kinds may now either be sown or transplanted.

Having thus concluded our monthly series of hints, before we make our bow, permit us to tender you our best wishes that your crops may be fruitful, those of the garden as well as of the field, and that health, prosperity and happiness may not only be the portion of you but of every one else in whom you may feel an interest.

CULTIVATION OF FRUIT AT THE SOUTH.

We copied into a late number of the "Farmer," a communication upon the subject of the cultivation of Fruit Trees at the South, which we found in Hovey's Magazine, from Robt. Chisolm, esq. of Beaufort, S. C. Having had occasion, since then, to correspond with Mr. C., we have selected from his letter the following extracts, which we are sure will be read with interest by the lovers of fine fruit:

To the Editor of the American Farmer:

SIR—Since I wrote my last, I have received March No. of the Farmer, containing the engraving of Gray's railway Horse-power, manufactured by Messrs R. Sinclair & Co. of your city, which, in my humble judgment, is, for our purposes of ginning Cotton and grinding Corn requiring more power and less velocity, decidedly the best I have yet seen. I have also purchased one of Hovey's Straw Cutters, with which I am much pleased, as the principal use I shall make of it will be to cut up oats and corn stubs—I am at a loss to understand the how and why of grinding fodder in Royer's machine.

"I have just received a large lot of all kinds of fruit trees from Paris, which to my surprise came out after a voyage of nearly 90 days, in better order, and are doing apparently much better than Apple, Peach and Pear Trees received early in the winter from an

honest nurseryman on Long Island. I believe the experience of our seaboard generally is in favor of European trees over Northern. Thus far in the year my fruit trees promise most abundant returns for the liberal manuring, little attention and poor soil I have given them. My soil is either a very stiff red clay very near the surface, or a very thin soil upon a hard sand of the nature of quicksand. The most productive apple trees that I have are upon the Doucin or half standard stock, and next upon the Paradise or dwarf. The trees I have are mostly from Italy, and have succeeded well thus far, that is, they have borne well, and the fruit has been as fine as any I have ever eaten in this country, and very superior to any thing I have ever eaten in Europe. Apple and Pear trees have, however, been found not to succeed upon their own roots, i. e. upon apple (standard) and pear roots, in the sandy soils of our Sea Islands, being disposed to grow too vigorously, and bear little, and sometimes not even blossoms.

"I have imported a large number of dwarf and quenouille trees from Paris for several of my friends this year, so that we will soon know whether trees of those kinds will succeed any better.

"An old and experienced planter and gardener in my neighborhood, whips or beats his Pear trees with rods, or poles, or crowskins, when they do not bear, and has succeeded in making them yield fruit by this treatment. I find my soil or treatment equally favorable to the sweet Orange trees, which bore most abundantly last summer, and the fruit has been pronounced by all to whom I have given them, and they are not few persons, to be the sweetest oranges they have ever eaten, in which opinion I quite coincide, as far as my knowledge goes. I have also several hundred Olive trees, received from Florence, most of which are just coming into bearing, and promise most abundantly this year, although many of them bore last summer.

"I believe that in our country an unreasonable prejudice exists against budding or grafting the peach upon the quince. Most amateurs in Europe prefer such trees, because they come into bearing much sooner, frequently produce larger and finer flavored fruit, occupy much less room, admitting thereby of a much greater variety of fruit in a small garden, requiring to be only about 10 feet apart, and will frequently flourish in soils unfavorable to trees upon pear roots.

"I have succeeded in making very dwarfish Pear trees, one now bearing, not more than 2½ to 3 feet high, by budding fruit spurs into quince stocks quite near the ground. I rather prefer budding buds that have started, or spurs, or even limbs sometimes as long as 8 inches, to dormant buds or eyes. In Roses I seldom use other than started buds or short limbs when I have a choice.

"It would give me pleasure to have you just drop into my garden to see my Tea and Noisette Lamarck Roses, nearly 4 inches across, the bushes hanging on the ground with a large variety of Tea, Noisette Bourbon and other Roses; my apple trees, sheets or balls of blossoms, Pear and Peach trees filled with fruit, my Olive trees appearing almost bending under the weight of their unopened buds, and many other sights that gratify my grateful heart daily.

ROBT. CHISOLM."

CHINESE MODE OF PROPAGATING FRUIT TREES.—

Strip a ring of bark about an inch in width from a bearing branch, surround the place with a ball of fat earth, or loam, bound fast to the branch with a piece

of matting: over this they suspend a pot or horn, with water, having a small hole in the bottom, just sufficient to let the water drop, in order to keep the earth constantly moist. The branch throws new roots into the earth just above the place where the ring of bark was stripped off. The operation is performed in the spring, and the branch is sawed off and put into the ground at the fall of the leaf, with as much of the earth attached to it as possible. The following year it will bear fruit.

STRAWBERRIES.—There is no fruit more delicious than the strawberry, and as there is no difficulty attending its cultivation, it has often been a matter of surprise to us why it is no more common. Our markets afford only the native fruit, plucked in the fields—not enough of the cultivated fruit appearing, to induce the supposition, in the minds of any one, that such an article can possibly be obtained. The following judicious observations and directions relative to the culture of this fruit we abstract from the American Gardener. The writer, it should be observed, has reference only to the two important requisites, soil and manure.

The soil proper for this last mentioned variety, as well as all others, is light, warm, and gravelly; and the manure to be applied should be exclusively vegetable, and not animal manure. The usual practice is to manure the ground with rotten dung, with a view to increase the size and quantity of fruit; but, in doing this, the flavor of the fruit is destroyed in proportion to the richness of the soil. Besides, high manuring produces vines and little fruit. Rotten leaves, decayed wood, ashes, in small quantity, mixed with other vegetable substances in a compost heap, will make better manure for strawberries than any animal substance whatever. As the vines which bear this fruit require great moisture to bring the fruit to its proper size, the soil and situation in which they are placed must not be too dry.—*Maine Cult.*

SALSIFY OR VEGETABLE OYSTER. (*Tragopogon porrifolius*.)—the vegetable oyster "is a biennial, a native of England." In cultivating this vegetable, we have found it to require about the same treatment as the parsnep, though the yield is much less, even under the best of culture. The plants are in eating from November to May, precisely the period in which other vegetables are most scarce and difficult to be obtained. It is stated in Ree's Cyclopaedia that "the stalks of the Tragopogon, may be cut and dressed like asparagus, in which they eat very tender and well."—*ib.*

CRANBERRIES.—This excellent fruit is very productive, and may be successfully propagated in fields and gardens, and indeed in any place or situation almost, where the soil is moderately humid and secure from the stultifying effects of drought. The most successful method of transplanting the vines, is to take them from the meadow in large tufts, and set them in holes from three to four feet apart. Manure formed of mud or muck from low humid places, and especially from the meadows or bogs where the plants grow spontaneously, is the most salutary of any in its effects, and is generally to be preferred because easily obtained. The fruit of the Cranberry is highly prized. In most markets it commands readily from one to three dollars per bushel.—*Maine Cultivator.*

CORN BREAD IN ENGLAND.—From all the information which we can gain by the late advices from England, we are disposed to believe that the experiment made to introduce there bread made from corn meal, has succeeded. We observe that the Bakers advertise it for sale, and commend the "biscuits" made from it as "nutritious." Let pains be taken in England in the preparation of bread from our great bread-stuff—let the housewives of the operatives of that wonderful Isle, become once familiar with the process of making our pones, johnney cakes, griddle cakes, slappers, egg pones, and puddings, and we fear not that Indian Corn Meal will get so fast a hold upon British appetites as to guaranty us a lasting market for a large portion of our annual surplus.

In a late debate in the House of Commons, Sir J. Graham, in claiming credit for the Irish policy of the government, alluded especially to the success of their purchases of Indian corn, and remarked, that the prejudice against it was fast subsiding; that the demand had already become great; and in Waterford and other ports where it was admitted, it was already superseding the demand for oats, which, indeed, could not be sold there as cheap. He also expressed the hope, that the consequence of superceding potatoes as the chief article of food, would be a beneficial effect on the moral and social, as well as on the physical condition of the Irish people.

The subjoined paragraph will be read with interest by our corn raising friends:

We have more than once recently referred to the popularity which Indian Corn, as an article of food, is attaining in this country. It will prove, ere long, a valuable export. The Government is most anxious that it should supercede, to a great extent, the potato among the laboring poor, and the recent scarcity of that esculent is favorable to its introduction. Cargoes of the Indian Corn are daily reaching British ports from the United States, and large quantities have been released from bond, duty free, under the Treasury order already mentioned. Shops for its exclusive retail sale are being opened in many of the large towns, and the American mode of using it is generally adopted.—*English paper.*

CULTURE OF WHITE BEANS.

The following, from the American Agriculturist, is the best answer we can give to the inquiries of two or three of our subscribers, in reference to the cultivation of White Beans.—*Ohio Cultivator.*

Soil.—The bean will grow well in any soil, from the stiffest clay to the loosest sand; but in our experience of its culture, we have found that of a light gravel, abounding somewhat with stone, suit it best. In a clay soil the bean does not ripen so well, or show so pure a white, and it is somewhat subject to mould and rot; in rich loam it runs too much to vine; and in light shifting sands its growth is small and somewhat parched.

Preparation.—We are supposing the soil a hard poor gravel; in this case it is customary to plow about 3 inches deep; but as the bean sends out innumerable fine roots from its main stem, it is important to have the ground loose and mellow to a greater depth, and yet keep the most fertile part of it on the top.

Seed.—The best kind of field bean, is of small size, plump, round, and slightly oblong in shape and of a white color. It is common in the Eastern States, and one of the finest samples of it which we have seen, has been distributed over the country by that indefatigable friend of agriculture, the Hon. H. L. Ellsworth, Commissioner of the Patent Office.

Planting.—For this purpose some prefer throwing the field into ridges; but this should only be resorted to when the soil is stiff, or possesses a superabundant moisture; in every other case planting on a level surface is best. Drills $2\frac{1}{2}$ to 3 feet apart is the favorite method of planting with those who are desirous of making the most of their ground; hills $2\frac{1}{2}$ to 3 feet distant each way, answer nearly as well; some sow broad-cast, but when this is done, no after-culture can follow, and the crop is liable to be lessened by the growth of weeds, and the land is left in a foul state.—Beans are frequently grown among corn, being planted between each hill at the second time of hoeing. The crop under this circumstance is small; it takes also from that of the corn, and it may be considered upon the whole, as scarcely paying for the extra trouble of culture. It is customary to plant beans after corn and potatoes are got in. The first week in June is quite early enough in this climate, farther north, the last of May is perhaps better; it grows quick, and we have seen first rate crops gathered from planting as late as the 15th of June, in the latitude of 42 deg. The quantity of seed usually allowed per acre, in hills, is one bushel; in drills, it would require a little more; broad-cast, at least two bushels. Yet this will depend something upon the size of the bean used, and the economy in dropping the seed. Six to seven beans should be dropped in each hill, and four or five stocks be left to bear; in drills drop the seed every two or three inches, and leave a plant every four or six inches. When planted in hills, the field may be checked out by a light one-horse plow as for corn, then drop the seed by hand, and cover with a hoe or shovel plow; for drills run the plow about two inches deep, then drop as above, or from a long necked bottle, or a tin cup with a hole in the bottom and a handle attached to it, slightly shaking the cup or bottle as the person dropping walks along. Children are best for this kind of work, as they are not obliged to stoop as much as men, and they will do it quite as rapidly and well.—After dropping, cover about two inches deep with the hoe, or turn back the furrow with the plow. When this is finished, it is best to pass a light roller over the ground. For drill planting, there are various machines which answer as well for beans as for corn, but in stony ground, or a stiff soil they do not cover well.

After-Culture.—This is very simple, and only requires the cultivator to be passed up and down the rows at two or three different times during the season, for the purpose of keeping the weeds down and stirring the earth, followed by a slight hilling with the hoe or a light plow, throwing the dirt to the plants.

Harvesting.—This should be done in dry weather as soon as the bean is well formed, and there is no danger of its moulding or shrinking; if left till touched by a hard frost, the pods are liable to crack open, and much waste ensues from their shelling. When sown broad-cast on smooth land, the most rapid way of harvesting is by mowing; when in hills or drills, especially in rough ground, it is customary to pull the vines by hand, which being light work, and demanding a good deal of stooping, may also, like the dropping of the seed, be performed by

children. As the bean-vines are pulled, they are thrown into small heaps and sunned daily, like hay. As soon as sufficiently dry, they should be taken to the barn, thrashed, and the straw stacked. We have never found it answer to stack beans before being thrashed; they have invariably become dark-colored or spotted, and in addition to this, we lost more or less by rot and mould. Mr. Solon Robinson, Vol. VIII, of the Cultivator, recommends the following method of curing beans on a clay soil in Indiana:—

‘Take poles or stakes (common fence stakes) into your bean-field, and set them stiff in the ground, at convenient distances apart, which experience will soon show you, and put a few sticks or stones around for a bottom, and then, as you pull an arm-full, take them to the stakes, and lay them around, the roots always to the stake, as high as you can reach, and tie the top course with a string, or a little straw, to prevent them from being blown off, and you will never complain again, that you cannot raise beans, because they are too troublesome to save.’

When situated something like Mr. Robinson, we have tried the plan recommended by him, and approve of it. Where there were no stones at hand, we used small chunks of wood in their place. In the more stony and silicious soils of the east, the stakes, &c., are unnecessary, beans will cure well enough on the bare ground. After being thrashed, the beans should be cleaned in the same manner that grain is, and then put into barrels or sacks and sent to market. The whiter they are in color, and the neater they appear, the quicker they sell and the higher the price they bring.

Product.—This varies greatly according to soil and cultivation. When planted with corn, 7 to 12 bushels is a fair yield per acre; when planted alone, 20 to 25 bushels. We are persuaded that, by sub-soiling even the poorest gravel land, and only lightly top-dressing it with the proper kind of manure, from 30 to 35 bushels per acre may be counted upon as an average; and if so, beans would be a much more profitable crop than anything else which could be produced from it. The highest product which we have known taken from a single acre was 53 bushels, but we have heard of 60 bushels being raised.

Value.—White beans of a good quality, well cleaned, and neatly put up, usually bring from \$1.00 to \$1.75 per bushel in this market; and occasionally they are worth from \$2.00 to \$2.50.—We do not recollect of their being less than \$1.00 for years. The straw is valuable as food for sheep, and when properly cured they eat it with avidity. In a chemical analysis of beans, it is found they abound with a greater quantity of the elements of wool than any other grain or vegetable; to make sheep produce heavy fleeces, they are therefore particularly desirable as food, and, such is their natural fondness for them, that they will eat them with avidity, whole or ground, even in a damaged state. To our store-flocks during the winter season we generally gave a pint of beans per head per day, and when we had not these, we fed peas, oats, and potatoes. Corn is good for fattening sheep, but not so valuable as beans, peas, oats, and most other kinds of grain for the production of wool.

THE INJUDICIOUS USE OF MANURES.

MR. EDITOR,—Knowing, as I do, that a large proportion of farmers in this country often throw away their manures when they suppose they are using them as they should, I have thought that an article upon this subject would not be out of place.

In consequence of a want of chemical knowledge,

agriculturists use their manures without judgment or discretion, and oftentimes to their most decided injury, as I shall proceed to show.

Agricultural chemistry teaches us that a certain class of vegetables, such as grain, requires a greater proportion of nitrogen than others. As nitrogen is not a very abundant article with most farmers, and yet of the highest value to the grain grower, it behooves him to make an economical use of it. If he intends to raise a fine crop of good wheat, it is highly necessary that he should not waste that quantity of that element that he has, or that he can get hold of.

All such crops as potatoes, turnips, beets, pumpkins, cabbages, peas, beans, carrots, &c., including clover, herd-grass, timothy, and the other grasses, need but very little of manures containing nitrogen, as they will receive all sufficient from the atmosphere and rain and snow; while wheat, rye, oats, corn, barley, and buckwheat, need larger proportions of such substances; each differs from the other, however, as to the quantity needed. Wheat for instance needs more nitrogen than either of the others, for the formation of the gluten which renders its flour so nutritious. The substances yielding nitrogen most abundantly, are the animal manures, especially the fluid manures, and the dead bodies of animals themselves. In connection with this matter, Liebig, in his work on Agricultural Chemistry, says: “An increase of animal manure gives rise not only to increase in the number of seeds, but also to a most remarkable difference in the proportion of the gluten which they obtain.” Here we have the highest authority for stating the importance of animal manures.

Those farmers, then, who use their animal manures upon those crops that need them not, thereby depriving their grain crops of them, although they cannot well do without them, in a measure throw them away. Such crops as potatoes, turnips, the grasses, &c., thrive as well when given rotten hay, straw, leaves, saw-dust, or swamp-muck, and such substances, as when furnished with the richest animal manures. They supply their proper food, and with a right proportion of the right kind of alkalies or alkaline substances, they can dispense entirely with animal manures, leaving them to be used for the grain crops.

Before leaving this subject it will be well perhaps, to add, that guano is often very injudiciously used, and the money spent for it thrown away; bringing thereby odium upon what is deridingly called “book farming.” The principal constituents of guano, different from most manures, are those which peculiarly fit it for grain; and whoever uses it for any other purpose, could save his money by dispensing with it and using cheaper and more accessible manures. I have no doubt that many complaints will be made by those who use guano upon vegetables, while those who use it on grain, will be well satisfied with its effects. We shall see. Yours, &c. **CHEMICO.**

Wilkesbarre, Dec. 9th, 1845. *Farmers' Cub.*

CARROTS.—The soil for carrots, should be deep, mellow, and rich, but more sandy than for beets. Sow as early in spring as convenient, or as soon as the ground is in fine order. The rows may be less distant apart, and the plants left closer in the rows than beets. The seeds should be soaked 24 hours in warm water; then rolled in ashes or plaster; frequent stirring of ground, and careful weeding, are essential to the growth of this crop. The variety of carrots most cultivated, are the Orange and Yellow.

LADIES' DEPARTMENT.

FLORICULTURE.

WORK FOR MAY.

Prepared for the *American Farmer*, by Saml. Feast, Florist.

Annual Flower Seeds, if not sown before, should now be attended to.

Mignonette, Candy-tuft, Lupins, Nolas, Rocket Larkspurs, Eschscholtzia, Sweet Peas, Poppies, &c., should be sown in little patches where they are intended to remain.

Tuberose, Tiger flowers, Gladioluses, and other summer flowering bulbs, should be planted immediately.

Brompton and Twickenham Stocks, intended for fine bloom, next winter, should now be sown.

Chrysanthemums may now be propagated by suckers and cuttings.

Herbaceous Plants of many kinds, may be safely removed.

Tender Annuals, sown in pots or boxes, in March and April, may now be transplanted to the border.

Tulips in beds, should be shaded, to preserve their bloom.

Roses in pots, may now be planted out into the border.

Dahlias should be planted out towards the latter end of the month, and the first week in June.

Verbenas and other plants, intended for summer bloom, should be planted now.

Pelargoniums or *Geraniums* in bloom, should be copiously supplied with water, and shaded from the sun.

Cactuses, when done blooming should be repotted. *Camellias* will now be finishing their growth, and should receive frequent syringing over the foliage.

Oranges and Lemons—If blooming, should receive plenty of air and moderate supplies of water.

Greenhouse plants may be removed to the open air this month,—commence by removing the hardiest first, such as *Rhododendrons, Azaleas, Laurustinus, &c.*

SOWING FLOWER SEEDS.—The first, and perhaps most important consideration, is, to have the ground in good condition to receive the seed. In order to attain that desirable object, let some good rich compost, or very old manure, be provided and well mixed with the soil; dig it a full spit deep, pulverize every particle.

A mellow loam, which is a medium earth between the extremes of clay and sand, enriched with pulverized manure or compost, is adapted to the generality of flowering plants.

All kinds of annual flower seeds may be sown in the months of April and May, on borders or beds of pulverized earth; the beds should be levelled, and the seed sown either in small patches, each kind by itself, or in drills, from an eighth to half an inch deep, according to the size or nature of the seed. Those who would have their plants flower early, should sow the hardy kinds the last week in March, or early in April. Tender varieties may be sown in boxes, or pots of light earth, at the same time. These, if exposed to the sun every day, and sheltered in cold nights, will be forwarded in growth, and be fit to transplant in May.

It may be necessary to state, that although, in favorable seasons, flower seeds in general will come up in from one to three weeks after being sown, the seed of the Cypress vine will not grow until settled warm weather, unless in a hot-bed; it should be

soaked for about an hour in moderately warm water, previous to being sown.

To prevent disappointment, I would recommend that great care be taken to keep the seed beds as clear as possible. It cannot be denied that young plants are apt to get smothered, and sometimes pulled up with weeds. To obviate this, I would suggest that the seeds be sown in shallow drills, each kind by itself, and carefully labelled. Those persons totally unacquainted with plants, will, by this means, be enabled to identify each particular kind, and thus become familiarly acquainted with them.

Labels may be made of pine shingles, which being split into strips about an inch wide, and sharpened at one end, will serve for making distinct kinds, either in pots, or on the borders.

When seeds are intended to be sown in patches, which is often done for want of an unoccupied border, the best way to perform this business is, after having pulverized the soil, to impress circular drills in the surface with the rim of a flower pot, which may be large or small, according to fancy. By sowing seed in such circular drills, the plants can be more easily traced than when scattered promiscuously over the ground, and the weeds can be destroyed with less risk and trouble.—*Bridgeman.*

MR. FEAST'S "QUEEN OF THE PRAIRIES"—A writer in the Patriot, in noticing the compliment paid to our townsman, Mr. S. Feast, by the Massachusetts Horticultural Society, of a valuable Gold Medal, for his "Queen of the Prairies" Rose, remarks:

"Numerous as were the species and varieties of that unrivalled flower, and splendid as were several hundreds of them, of European, Asiatic and African origin, Mr. Feast has succeeded in providing even another tribe; and what renders his success the more gratifying, is the fact, that the type, the basis, of this splendid production, is of native origin—from the beautiful prairies of our queen of worlds. It is not the mere improvement or production of a single plant that is merely a variety or member of some old family,—but the creation of a new tribe, whose varieties bid fair to rival all others, and in some respects to eclipse them all. We have much pleasure in copying from the Boston papers the official evidence of the skill of our townsman, and to commend this addition to the wreath of Flora, to the attention of our citizens."

From the Farmers' Library.

MANAGEMENT OF POULTRY.

Feathers.—As I have experimented and found out a fact, that every housewife should know, and as I wish to be useful the little time I have to live I should like it to be well known, that feathers, smelling ever so badly, may be restored to perfect freshness, by washing them clean (in soap suds) and letting them lie a day and a night in lime water, about as strong as we drink it, medicinally. They should then be dried as soon as possible in the air, or by the fire. It is not known what a quantity of dirt there is in very nice looking feathers. But it is not the dirt that makes them smell, so much as the pen, and unripe feathers.

J. H. W. keeps the old hens up (in coops) from the time the chickens are hatched until they are fit to eat; and a most excellent way it is, but I think it is too great a punishment. If I had my choice, I would raise ducks, both sorts, and chickens, with old turkey hens. True, they take them away from the

house, but then they travel so slow, so gentle, that it suits much better.

Food.—For young chickens nothing is better than *Indian corn dough*, until they can eat corn or the refuse of wheat. They will eat the latter in a few days, and small grain in less than three weeks. The sooner they get to eat grain the better.

Muscovy and Puddle Ducks.—These differ very much in their habits, but will do to feed together. Both should always have access to water, particularly in very hot weather. They require a place where they can cool their feet. I prefer a pond, if running water is not convenient. I have seen their feet parched with the heat of the ground.

Food for Ducks.—Wet meal or wheat bran for a week or two, kept in a coop or place that they can go at pleasure. After some time, a rich wash, made of any kind of vegetables—nothing better than *parsley*, thickened with the husks of Indian meal. It will not do to keep both sorts of ducks for breeding on the same dunghill.

Turkeys.—These should not be disturbed by any means, while they are hatching; and if they could be set to hatch so far apart as not to hear each other's young, it would be better. Some people have the nests so fixed that the old ones can't leave them while they are hatching.

Food for Turkeys.—The first thing is a grain of *pepper* to each—see that they swallow it; then corn-meal wet. After a few days, a spoonful of *tobacco seed* put in victuals for thirty turkeys for the day. This may be done every day, if convenient, and now and then about a *tea-spoonful of copperas*, say three times a week, in the evening. One great point is to keep them clear of *lice* (you may call them what you will). The only thing to do that is *sefi grease*, in dry weather; but there should be great care used so as not to make them too greasy.—Lately a more certain remedy has been found: it is *fishberry*, steeped in whiskey, sold by the apothecaries. But after being raised, there is a most fatal disease for turkeys, which attends them soon after going into the *tobacco fields*. They are taken with a *choking*; seem to draw their necks down, as it were into their craws, and then discharging from their mouths the greatest quantity of matter of the most shocking odor. Out of forty, large enough to eat, we saved but seven. We think that was done by giving them *lard*—a piece as large as a nutmeg. When first taken twice will be enough to give it.

Baltimore Market, April 30.

Cattle, only 194 head at market on Monday, and prices have improved, ranging from \$2.87a3.75 per 100 lbs. on the hoof equal to \$5.75a7.25 net, —cover age rate \$3.50—**Hogs**, live, dull, large supply at 4.45—**Flour**, Howard-st. sales at \$4.50; receipt price \$4.37; **Susquehanna** \$4.50, no sale; no inquiry for **City mills**; **Rye-flour** \$3.75; **Corn meal**, sales at \$3.19—**Wheat** comes in sparingly, good to prime Md. reds 90a98c.; family flour, white, 108a120c.—**Corn**, dull at 61a62c. for white, and 60c. for yellow—**Oats**, 38c.—**Western mess Pork** \$11.25a11.50; prime 9.25a10; **Balto. packed mess** \$12.50, and prime \$10.50—**Mess Beef**, 10.25a10.50; No. 1, \$8.25a8.75; prime \$6.25a6.50—**Western sides Bacon**, 5ja5j; shoulders 4ja4j; hams 6a7j; **Balt. cured shoulders** 5; sides 6; hams 7ja8—**Lard**, 7a7jc. in kegs, 6ja7c. in bbls.—**Whiskey**, has declined, sales at 21c. for bbls. 23c. for barrels, and dull—**Coffee**, Rio, 7ja8c.—**Cotton**, dull, Mobile, 10c.—**Fish**, No. 1, trimmed ahead \$7, untrimmed

\$6.50; **Herrings**, N. Carolina \$3.37; **Susquehanna** and **Patomac** \$3.50—**Feathers**, dull 20a25 for inferior to medium, and 26a30 for good to prime—**Hemp**, Ky. dew rotted 4c.—**Hay**, \$18a19—**Molasses**, N. O. 30c. for hhds. 31 for bbls.; **Port Rico**, 28jc.—**Plaster**, \$2.62 per ton—**Rice**, 4.37a4.50 per 100 lbs.—**Sugars**, N. O. 5 75 for com. to 6 75 for prime, choice parcels, 57; **Port Rico** 6.50a7.50—**Tobacco**, inferior and com. Md. 2a2.50; mid. to good 3a5.50; good \$6, fine 7a12; in Ohio, but little doing, com. to mid. \$2.50a4.50; good 5a7; fine red and wrappy \$11a13;—the business in all descriptions is very limited, and the accounts by the last steamer is very discouraging, and limits put to orders are very low—and the receipts of Md. are mostly of com. and infer. qualities, which are not wanted—The inspections for the last four weeks, were, Md. 4255; Ohio 540; Va. 4; Ky 38; Pa. 5; Total, 4844 hhds—**Potatoes**, 7ja50c. peck, retail—**Wool**, half blood, washed 31c. tub washed native, 28; com. B. Ayres 12jc.—**Coupons**, 74a76, in demand—Va. money, plenty, 2 per ct. discount.

The *Great Western* steamer arrived at New York on Tuesday, bringing 7 days later news from England than before received—by her we learn that there had been an improvement in the cotton market, and that speculators were operating freely—an advance of 1.8 d., for fair cotton had taken place, and the sales for the last week had been 37,000 bales. Indian corn had also advanced 1s. per quarter.

The news was considered rather favorable in New York—the war feeling, which had been gotten up at former advices, had subsided.

The "Simon pure," and invincible **WILEY FLOW** still in the field—A. G. MOTT, at No. 38 EXETER STREET, near the *Bel-Air Market*—Manufacturer and Vender of Implements of Husbandry, viz. *Plows, Harrows, Cultivators, Grain-Cradles, Wheel-Fans, Corn-Shellers, Straw-Cutters*, Endless chain *Horse Powers, Threshing Machines*, &c. &c.—through this medium, would apprise the agricultural community of the fact, that he is the only manufacturer in the "Monumental city" of the GENUINE **WILEY FLOW** (right and left hand) composed of the real "Simon pure" and justly celebrated New York composition, chilled castings, the points of which, are warranted to stand the most rugged soil equal to steel, at a cost of about two cents per acre, for blacksmith's bill.—If you are for bargains, call, or send your orders, for he guarantees his implements good to the best, and cheap as the cheapest, for *Cash*, and delivered in any part of the city free of charge—allow castings by the piece or ton; old implements repaired on the most reasonable terms. Orders addressed to A. G. MOTT, Baltimore, will receive prompt attention. dec. 1

PLOUGHS! PLOUGHS!!



The subscriber is manufacturing Ploughs of various patterns and of different sizes; also Wheat Fans, Cylindrical Straw Cutters, Corn and Tobacco Cultivators, CORN SHELLERS, &c. Also,

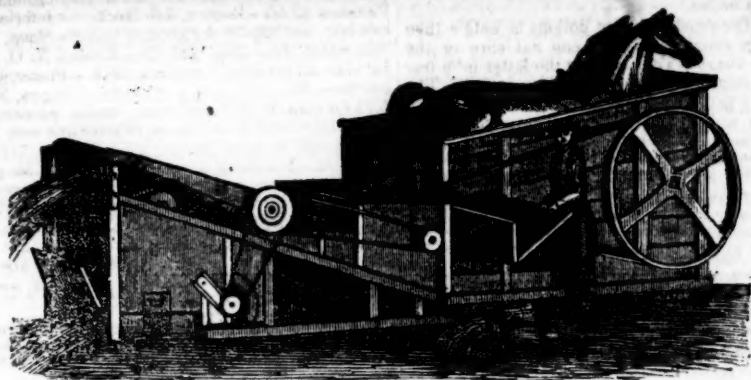
THRESHING MACHINES and **HORSE POWERS**—these latter are used by the following gentlemen, to whom reference is made, as to their superior value, viz. Messrs. S. Beard, T. Beard, Dr. Watkins, T. J. Hodges, T. Welsh, W. Mackall, J. Ighehart, A. Sellman, W. Hopkins, J. Kent, G. E. Gaither, all of Anne Arundel County; and to Messrs. R. B. Chew, J. Y. Barber, W. Boswell, G. W. Weems, and Z. Howes, of Calvert co. Md. (Those wishing to examine the above articles are invited to call at my establishment in *Gillingham alley*, entrance from Howard st. 4 doors from Pratt st. Baltimore. mh 1

CHAS. H. DRURY.

GUANO—The subscribers have received from N. York, a large supply of this celebrated manure, imported into that port in the bark *Caroline Amelia* from *Chila*, and is equal to any ever brought to this country. It is in the original bags of about 150 pounds each, and will be sold by the bag or larger quantity at \$40 per ton of 10 tons and over, —\$44 per ton of 5 tons and over—\$45 per ton for less than 5 tons, of 2440 lbs.

F. & W. BODEWILL, Buchanan's wharf. (Orders for smaller quantities than 5 tons supplied by SAMUEL SARRS, at the office of the *American Farmer*, 123 Baltimore street, near North street, where the analysis and report of Prof. DECATIE (an extract from which was published in the last Farmer) can be examined. mh 1

WHITMAN'S WROUGHT IRON RAILWAY HORSE POWER & THRASHING MACHINE.



THE above cut represents my Wrought Iron Railway Horse Power and Thrashing Machine, of which more than one thousand are now in use—and as this is the only Horse Power or Thrashing Machine that has given general satisfaction, I take pleasure in giving a short description of it, with a list of prices.

1st. The frame of the Horse Power is made with five posts, on either side, and as many cross girds bolted together with wrought iron in the most substantial manner.

2d. The Rail-way, guides, circles, and all the connecting and fastening irons, are made of wrought iron, instead of cast iron.

3d. The gearing is at the end of the Power, where it is not affected by the wear, or liable to be broken by wild or false horses.

4th. It being made of wrought iron, there is no difficulty in giving sufficient width for the horses to travel with ease, and no more rods, wheels or fastenings in the two horse power, than in the one horse power.

5th. Farmers wishing to purchase, will be particular to observe the above, as the great success of my machine, may bring others, of inferior construction, into our market.

AULT'S ENGLISH GARDEN SEEDS. Just received from our friends near London, our usual supply of first rate English GARDEN SEEDS, warranted to be of the same good quality as those of last and former years. Further recommendation is needless. They consist of the various kinds of Peas, Beans, Cabbage, Cauliflower, Brocoli, Carrot, Parsnip, Turnip, Onion, Radish, &c. &c. Also, Stercin's Ruta Baga and Transparent Silisia SUGAR BEET, for cattle. The above wholesale and retail, by

SAML AULT & SON,
mh 1 N. W. corner Calvert & Water-sts.

AGRICULTURAL IMPLEMENTS for sale at No. 7 Bowly's wharf, Baltimore, by **WM. GAWTHROP & SON.** We offer to Farmers and Planters our Premium Double Corn Shells, which have proved themselves to be the very best now in use.—we have on hand one of the best selections of PLOWS in the state, the castings of which are the composition metal, with chilled heels, points and edges; our plows embrace the Minor & Horton from 6 inch. to 13, so much used in the North; it is one of the lightest draught plows in use—we have the Wiley improved, and the old pattern of the N. York manufacture, which is known without comment. Also, the Prouty, Chenoweth, Self-sharpening, Davis, and all other kinds; Plow Shears and Points for all kinds of Plows; Fans, Straw Cutters, Corn and Cob Crushers, and all other kinds of Implements used in farming—we also keep all kinds of Field Seeds—we do a general commission business in Grain, Seeds and Country Produce.

NOTICE—The subscriber, residing near Williamsport, Washington Co. Md. is desirous of employing for the next year, a **GARDENER**—To a person well versed in the business, sober and industrious, liberal wages will be given.
mh 1 & JNO. R. DALL.

BOMMER'S METHOD FOR MAKING MANURE—The subscriber has been appointed by Mr. Bommer, his agent for the Southern States, and will dispose of the Books, with the right to use them, for any sized farm, at \$5 each. Address (post paid) mh SAML SANDS, office of "A. Farmer."

I have the pleasure of referring to either of the following named gentlemen farmers, residing in the immediate vicinity of Baltimore, who have purchased my Horse Power and Thrashing Machine the past season, and who will no doubt be willing to give information respecting their utility,—viz:

Jesse Slingluff,	James Swan,	George Harryman,
Jacob S. Forney,	William Gent,	Daniel Bowly,
Thomas J. Talbott,	Owen Cecil,	A. M. Johnson,
Joseph Parks,	George Jenkins,	Charles R. Barney,
Frederick Harrison,	John Rider,	Samuel Sutton,
William Shipley,	Joseph Benson,	

The cash prices for those articles are as follows, viz:
For Two Horse Power, \$100—For One Horse Power, \$75—with an additional charge for extra long shaft and extra pulley, \$5. For Thrasher which thrashes and cleans at one and the same operation, \$100. For 24 inch Thrasher, with new improvement, \$50—20 inch do. with do., \$45—16 inch do., \$40. The prices of common Thrashers vary from 25 to \$35.

EZRA HITMAN, Jr.
April 1 No 55 Light street near Pratt.

JAMES MURRAY'S CORN & COB CRUSHERS.

These already celebrated machines have obtained the premium by a fair trial against other Crushers exhibited at the fair held at Govanstown, Balt. Co. Md. in Oct. 1843, and the increased demand enables the patentee to give further inducements to purchasers by fitting an extra pair of grinders to each machine without extra charge. Prices \$25, 30, 35, 40, 45.

Also—Small MILLS, which received a certificate of merit, for \$15—I have also superior CUTTING BOXES, such as will bear inspection by either farmers or mechanics. Also, Horse Powers, Mills, Corn Shellers, Mill and Carry-log Screws, small Steam Engines, Turning Lathes, &c. Also, a second hand Steam Engine, 16 horse power, and the works for 2 Saw Mills. Any kind of Machine, Mill or Mill-work built to order, and all mills planned and erected by me, warranted to operate well.

Patent Rights for the Corn and Cob Crusher for sale.
ry. JAS. MURRAY, Millwright, York near Light-st. Bk.

"Spade labour, the perfection of good husbandry."

PULVERIZA-
TION.



DECOMPOSI-
TION.

THE "PREMIUM PLOUGH"—In PROUTY & MEARS' No. 51-2, "confessingly the best PLOUGH known in this country for beauty of work and pulverizing the soil," we have combined the most perfect swing as well as wheel Plough, connected also with the principles of self-sharpening and centre draught, which with the facility of turning it into a Tandem 2, 4, or 3 horses abreast Plough in a minute of time, renders it the No 1 PLOUGH of perfection. During the past season it received the first premium for the BEST PLOUGH, at Philadelphia; a first, second and third premium at New Castle county, Del.; the Imperial Medal of Russia, of massive gold, value \$300; and at Prince George's society, Md. the highest testimony of approbation, in not permitting it to compete, having already received the first premium as "the BEST PLOUGH for general purposes." Their one-horse Plough No. 51-2, is strongly recommended for light soils and horticultural purposes, being built after the same model, self-sharpening, and carrying a sod furrow 10 in wide with great ease and precision. For sale at No. 55 Light st. Baltimore, Md. EZRA WHITMAN being appointed sole Agent for sales in Baltimore and vicinity.

Fel

GARDEN AND FLOWER SEEDS.

THE subscriber has for sale at his SEED & BOOK STORE, 122 Baltimore-st., sign of the **GOLDEN PLOUGH**, a general assortment of GARDEN & FLOWER SEEDS—and will furnish to order FIELD SEEDS, FRUIT & ORNAMENTAL TREES and SHRUBBERY of every description—also any of the AGRICULTURAL MACHINERY and IMPLEMENTS manufactured in this city, as well as the IMPROVED BREEDS of CATTLE, SHEEP, HOGS, FOWLS, &c.

BOOKS—In addition to the works advertised last month, he has just received a further supply, and his assortment now comprises a very general assortment. **S. SANDS.**

Subscriptions received for Skioner's Farmer's Library, \$5 per annum, or 50 cts. single No.; the Farmers' Cabinet, the American Agriculturist, Albany Cultivator, Southern Planter, each \$1; the New York Farmer & Mechanic, weekly at \$1 per ann. and all other agricultural works, at publishers prices. Also, for Colman's Tour, \$5, complete; Bommer's Manure Method, \$3; &c. may 1

PATENT PREMIUM CORN AND COB MILL, which received the highest premium at the New York State Fair, last September—Just received, and for sale by the subscriber at his Warehouse, No. 35 Light-st.—Baltimore.
May 1 **EZRA WHITMAN, JR.**

AGRICULTURAL MACHINERY.—



The following Agricultural Machinery, are particularly recommended to extensive planters for great capacity, strength, durability and performance. From our experience in their manufacture and the success attending sales of them the last ten years, we can safely recommend them to be equal if not superior to other similar machines made in this country, viz:

Leaver Horse Powers, for 2 horses, and strength sufficient for the draught of eight, \$150
Do. do. for 2 to 6 horses, \$100
Endless Chain Horse Powers, No. 1, \$75
Do do do No. 2, \$100
Driving Leather Bands, 8 to \$10
Thrashing Machine, with 20 in. cylinder, \$40
Do do do 30 do \$60
Goldsbrough Corn Sheller and Husking Machine, very simple and excellent, \$40
Fettigrew N. C. do \$20
Corn and Cob Crushers, \$30
Corn Mills, for grinding fine or coarse meal, \$40
Wheat Pans, Rice's patent \$25 to 30
Do do Watkins' extra, \$45
Cylindrical Straw Cutters, for cutting straw, hay, corn stalks, &c., (the medium size) price 30 to \$46
Do. ever cutting 14 to \$30
Hand Corn Shellers, 12 to \$16
Also, Ploughs of most approved construction, Harrows, Cultivators, Grain Cradles, and every variety of Farming and Garden TOOLS. Field and Garden SEEDS, an extensive assortment. See Catalogue for particulars.

May 1 **R. SINCLAIR, JR. & Co.**
Baltimore.

PREMIUM WHEAT FANS AND GRAIN CRADLES.

These implements have been brought to such perfection by J. T. Grant & Co. of New York, that the use of them is no longer considered laborious, (formerly) but may be used by boys or the weaker hands on a plantation. They will be kept for sale during the harvest season by the subscriber, who is the sole Agent in Baltimore.

May 1 **EZRA WHITMAN, JR.**
No. 35 Light-st.—Baltimore.

Tom Jackscrew.



A STALLION of the noted Tom breed—bred by Samuel Stone, Esq., and late of the property of Mr. T. R. S. Boyce; of great power and substance—beautiful mahogany bay colour, and perfect in all his gait, which are natural. And **ARGONAUT CHIEF.**

A CANADIAN STALLION of remarkable strength and finish of form, and great speed; will stand for the following season:

On Monday afternoon and Tuesday morning, at Squire Bond's tavern, 8 miles from Baltimore, on the York Road.

On Tuesday afternoon and Wednesday morning, at Campbell's tavern, near Brooklandville, on the Falls Road.

On Wednesday afternoon and Thursday morning, at T. Kennedy's tavern, Govanstown.

On Thursday afternoon and Friday morning at Wether's tavern, 9 miles from Baltimore, on the Harford road.

On Friday afternoon and Saturday morning, at Kern's tavern, Long Green—and from Saturday noon till Monday noon at Glen Ellen farm, at the stables of R. Gilmore, Jr., 10 1-2 miles from Baltimore, old York road.

TERMS—For Tom's services to Mares, \$4, 8, and 12.
“ “ Chief's, “ “ “ 6, 8, and 10.

HARPER'S PICTORIAL BIBLE.—By the time this number reaches our subscribers we presume this Bible will be complete, and as many of our friends have subscribed for it we take this opportunity of informing them that they can have it bound in a style of matchless elegance and durability, by EDWARD LYCETT, S.N., at his Bindery, over our Book & Seed Store, No. 122 Baltimore-street—on reasonable terms. May 1.

HORSE-POWERS AND THRASHING MACHINES.—The Subscriber has on hand six Horse-Powers and Thrashing Machines, which he will sell very low, as he wants the room they occupy; they will be warranted to be equal to any machines for the same purpose in use—the Horse-powers are so constructed as to give a great deal of work in one to fifteen hundred.—He has also on hand a good stock of Ploughs and Plough-castings, on accommodating terms, at wholesale and retail,—also, Cultivators, Harrows, his Patent Cylindrical Straw-Cutters, &c. &c. **J. S. EASTMAN,**
May 1 No. 108 Pratt st.—Baltimore.

METEOROLOGICAL TABLE, FROM 28TH MARCH, TO 27TH APRIL.

Kept at Schellman Hall, near Sykesville, Carroll co. Md. Taken at 6 o'clock, a. m., 9 o'clock, noon, and at 6 o'clock, p. m.

Wind.	Temperature	Remarks.
28 NW SE W	32 45 48	Cloudy Rain
29 W NW NW	32 35 38	Frost Clear
30 NW NW W	33 51 47	Clear
31 W W W	38 57 53	Frost Clear
1 N W W	36 55 51	Frost Clear
2 W W SE	33 55 48	Clear
3 S W S	30 57 52	Clear
4 SW SW SW	30 55 49	Clear
5 W S S	31 58 50	Frost Clear
6 S S S	38 72 61	Cloudy Clear
7 W SE SE	43 67 62	Clear
8 SW SW W	50 53 46	Cloudy Shower Cloudy
9 SW SW SW	34 55 51	Clear
10 SW SW SW	61 67 63	Cloudy
11 SW S	40 67 67	Cloudy
12 W W W	53 59 50	Rain 1-2 inch, Clear
13 WNW WNW	35 49 43	Clear
14 SW SW S	30 57 51	Clear
15 SW SW SW	43 68 53	Clear
16 SE SW S	31 53 49	Frost Clear
17 W S S	40 76 67	Clear Swallows
18 W SW SW	60 80 75	Clear
19 SW SW SW	63 75 66	Clear,
20 W W W	42 73 63	Clear,
21 W SW SW	46 85 75	Clear,
22 SW SE SE	64 75 67	Clear, Cloudy,
23 SW SW SW	46 75 65	Clear, Cloudy,
24 W W W	55 80 73	Clear Shower, Clear
25 W E SE	62 60 53	Clear, Cloudy
26 E E W	40 42 42	Rain 3-4 inch
27 NW SW	36 65	Frost Clear

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